DOCUMENT RESUME

ED 463 395 CE 081 292

AUTHOR Scholes, Julie; Endacott, Ruth; Chellel, Annie
TITLE Diversity and Complexity: A Documentary Analysis of Critical Care Nursing Education. Researching Professional Education Research Report Series.
INSTITUTION English National Board for Nursing, Midwifery and Health Visiting, London.
REPORT NO ENB-RR-13
ISBN ISBN-1-901697-37-1
PUB DATE 1999-00-00
NOTE 142p.; Includes "Documentary Analysis and Literature Review of Critical Care Nursing Education. Research Highlights 35."
AVAILABLE FROM English National Board for Nursing, Midwifery and Health Visiting, Publications Department, Victory House, 170 Tottenham Court Road, London W1P OHA, England, United Kingdom. Tel: 0207-391-6314; e-mail: pubs@enb.org.uk.
PUB TYPE Information Analyses (070) -- Reports - Research (143)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Clinical Teaching (Health Professions); Competence; Competency Based Education; Core Curriculum; *Curriculum; Education Work Relationship; *Educational Needs; Educational Practices; Educational Research; Educational Trends; Employment Qualifications; Foreign Countries; Higher Education; Job Skills; Literature Reviews; Local Issues; Needs Assessment; *Nurses; *Nursing Education; Professional Education; Skill Development; State of the Art Reviews; Trend Analysis
IDENTIFIERS *England; *Intensive Care Nursing

ABSTRACT

The knowledge and skills needed by critical care nurses and the content and strategies of England's existing critical care nursing education programs were examined to identify core competencies that could provide a central foundation for and promote national comparability of critical care nursing programs throughout England. The study included a comprehensive literature review, an analysis of curriculum documents from 105 English National Board-approved critical care nursing courses offered at 30 institutions, telephone interviews with 84 program leaders, and a telephone survey of 81 clinical managers. The analysis was complicated by the fact that each curriculum document was written differently. Neither was any consistent pattern in the configuration and weighting of core, specialist, or cluster modules identifiable. A general drift away from formal curriculum models to modular frameworks was observed. Two distinct approaches to the generation of practice outcomes were evident, predetermined outcomes set by the curriculum development team and student-determined outcomes. Ensuring that programs are responsive to local needs emerged as a key factor in the changing provision of critical care courses; however, a tension between being responsive to local needs and trying to establishing a "gold standard" or comparability of courses was sometimes evident. (Contains 46 tables/figures and 313 references.) (MN)

Reproductions supplied by EDRS are the best that can be made from the original document.

ED 463 395

Diversity and Complexity: A Documentary Analysis of Critical Care Nursing Education. Researching Professional Education Research Report Series.

Julie Scholes
Ruth Endacott
Annie Chellel

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL
IN MICROFICHE ONLY HAS BEEN
GRANTED BY

O. Akinade

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

2B

CE 081 292

BEST COPY AVAILABLE

RESEARCHING PROFESSIONAL EDUCATION

Diversity and Complexity: a documentary analysis of critical care nursing education

research reports series
number 13

English National Board for
Nursing, Midwifery and Health Visiting

RESEARCHING PROFESSIONAL EDUCATION

A series from the English National Board for Nursing, Midwifery and Health Visiting

Diversity and Complexity: a documentary analysis of critical care nursing education

Julie Scholes
Ruth Endacott
Annie Chellel

University of Brighton, Sussex

London, 1999

Published by
The English National Board for Nursing, Midwifery and Health Visiting,
Victory House, 170 Tottenham Court Road, London W1P 0HA
Telephone: 0171 388 3131
Fax: 0171 383 4031
E-mail: pubs@enb.org.uk
www site: http://www.enb.org.uk

© English National Board for Nursing, Midwifery and Health Visiting, 1999

ISBN 1 901697 37 1

This report has been prepared for publication by
Jill Rogers Associates, Cambridgeshire
Design by Sadler, Suffolk
Printed by Chiltern Press, Luton

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic or mechanical, photocopying, recording and/or otherwise without the prior written permission of the publishers. This book may not be lent, resold, hired out or otherwise disposed of by way of trade in any form, binding or cover other than that in which it is published, without the prior consent of the publishers.

BEST COPY AVAILABLE

Acknowledgements

The research team would like to extend their sincere thanks to the following, without whom this report would not have been possible.

To all the lecturers and pathway leaders who participated in the telephone interview and forwarded copies of their curriculum and then patiently advised the team throughout the iterative process. Thank you for your time, honesty and words of encouragement.

To all the stakeholders of institutions who gave permission for the curriculum documentation to be released.

To all the participants of the four focus groups who gave up their time and were willing to explore the issues frankly and openly with us.

To all the managers who took part in the telephone survey.

To all the people who submitted their unpublished PhDs and research reports to help inform the study, particularly Kath Kite; Alec Duncan Grant; Jackie Hewitt-Taylor; and Jane Seymour.

To the clinical consultants Deborah Dawson (ITU); Jo Harrison (A&E); Denise Hinge (ITU); and Alison Robertson (Paediatrics) who have patiently advised us and grounded us in the real world when the project was taking us somewhere else.

To Nick Ross and Gail Louw who worked on the development of this project.

To the Steering Group – our 'critical friends' – for their hard work, advice and good cheer.

To members of library staff in various institutions whose help and assistance has been invaluable, particularly, Lorne Noble and Judy Leehman at the Post Graduate Library, Brighton.

The Project Team

Julie Scholes, Principal Lecturer, Research and Practice Development, Centre for Nursing and Midwifery Research, University of Brighton.

Ruth Endacott, Researcher and Adviser in Critical Care Nursing.

Annie Chellel, Senior Lecturer, University of Brighton.

The Steering Group

Collette Clifford (Chair), Professor, Head of Nursing and Research, University of Birmingham

Sonia Crow, Assistant Director for Educational Policy (Research and Development), English National Board for Nursing, Midwifery and Health Visiting

Gill Hek, Senior Lecturer, Faculty of Health and Social Care, University of West of England

Kim Manley, Senior Fellow, Practice Development, RCN Institute

Lin McDonagh, Education Officer (Children's Nursing), English National Board for Nursing, Midwifery and Health Visiting

Sandy Waldron, Head Nurse, Accident and Emergency, The Royal Sussex County Hospital

Michael Whiting, Professor, Dean of the Faculty of Health, University of Brighton

Marilyn Williams, Senior Lecturer, University of Wolverhampton

The Authors

Julie Scholes, the project director, is Principal Lecturer, Research and Practice Development at the Centre for Nursing and Midwifery Research, University of Brighton. Julie is a qualified nurse whose clinical and teaching background has been in critical care and trauma nursing. Her doctorate examined the role transition experienced by enrolled nurses converting to registered general nurse. Since 1992, the focus of her research has been on evaluating the impact of innovation on patients, practitioners and practice in a variety of clinical settings and the impact of innovative curriculum on students, teachers and preceptors. In this way she links her key interests in role transition with practice development.

Ruth Endacott is a researcher and adviser in the field of critical care nursing. Throughout this project she was seconded to the Centre for Nursing and Midwifery Research, University of Brighton as a Principal Research Fellow. Ruth has been involved in intensive care since 1982 as a practitioner, lecturer and researcher. Her PhD explored the ways in which nurses perceive and act on the needs of the critically ill child. Other research interests centre around the nature of nursing dependency and workload in intensive care and she acted as the lead researcher for two RCN Critical Care Forum studies exploring these issues. Ruth has been a member of critical care working parties at the Department of Health and the Audit Commission and is a member of the Scientific Committee for the Intensive Care National Audit and Research Centre. She is currently undertaking consultancy work for the RCN Faculty of Emergency Nursing Project.

Annie Chellel is a Senior Lecturer at the University of Brighton. She came to nursing after completing a first degree in French Literature and became a Sister in Intensive Care at the Kent and Sussex Hospital in Tunbridge Wells. While in practice she obtained a BSc (Hons) and MA in nursing from the University of Brighton. Research activities include projects carried out with the Critical Care Forum of the RCN and locally-funded studies on costing and the care of relatives in intensive care. She currently teaches nursing knowledge and skills to pre-registration students and is in the process of developing a project on the use of nursing diagnoses.

Abbreviations

A&E	Accident and emergency
APEL	Accreditation of prior experiential learning
APL	Accreditation of prior learning
ATLS	Advanced trauma life support
ACLS	Advanced cardiac life support
BPA	British Paediatric Association
The Board	The English National Board for Nursing, Midwifery and Health Visiting
CATS	Credit Accumulation and Transfer Scheme
CCU	Coronary care unit
CTU	Cardiothoracic unit
CNAA	Council for National Academic Awards
DGH	District general hospital
DoH	Department of Health
HDU	High dependency unit
ICU	Intensive care unit
MI	Myocardial infarction
NHS	National Health Service
NP	Nurse practitioner
NVQ	National Vocational Qualification
ODA	Operating department assistant
ODP	Operating department practitioner
PAM	Profession allied to medicine
PICU	Paediatric intensive care unit
QAA	Quality Assurance Agency
RCN	Royal College of Nursing
UKCC	United Kingdom Central Council for Nursing, Midwifery and Health Visiting

Foreword

The English National Board for Nursing, Midwifery and Health Visiting is delighted to publish this report as the thirteenth in its successful series: *Researching Professional Education.*

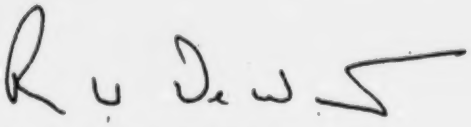
The Board launched this series with the aim of making widely available the results and implications of research commissioned by the Board. The series enables key stakeholders: policy makers, managers, practitioners, researchers and educators to have access to relevant and sound research from which to plan educational developments.

Diversity and Complexity: a documentary analysis of critical care nursing education was commissioned with the aim of informing the Board's development of national core competencies which could provide a central foundation and promote national comparability in all Board validated clinical programmes. The research team focused on the five most frequently occurring critical care programmes and collected data concerning the perceptions of service managers and educational institutions together with undertaking an extensive documentary analysis and literature review.

Among the many issues revealed by the research were the:

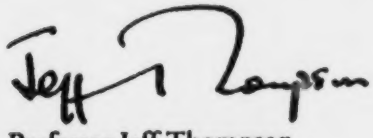
- variety of curriculum models
- impact of work-based learning
- differences in the expectations of managers and academic institutions
- different interpretations of academic levels
- balance of assessment methods.

The report forms the first phase of a larger-scale empirical evaluation examining the outcomes of curricular intentions. The Board will consider the outcomes of both research projects in relation to policy developments.



Professor Ron De Witt

Chairman, English National Board for Nursing, Midwifery and Health Visiting



Professor Jeff Thompson

Chair, Research and Development Committee, English National Board for Nursing, Midwifery and Health Visiting

London, 1999

Contents

1.	**Introduction**		9
	1.1	Background and context	9
	1.2	Introduction to the project	10
	1.3	An overview of the report	14
2.	**Methodology**		15
	2.1	Introduction	15
	2.2	The literature review	15
	2.3	The telephone interview: lecturers	18
	2.4	Documentary analysis	20
	2.5	The telephone survey: clinical managers	22
3.	**The Telephone Interview**		23
	3.1	Introduction	23
	3.2	The telephone interview: method, ethics and sample	23
	3.3	Lecturers' accounts of factors influencing curriculum design and content	25
4.	**Literature Review: the education context**		31
	4.1	Introduction	31
	4.2	Higher education	32
	4.3	Factors affecting nurse education	39
	4.4	Critical care programmes	41
5.	**Literature Review: the clinical context**		45
	5.1	Introduction	45
	5.2	The nature of UK nursing practice in the 1990s	45
	5.3	Defining critical care	49
	5.4	The policy context	49
	5.5	Developments in critical care nursing	51
	5.6	The care of children in adult settings	54
	5.7	Accident and emergency nursing	54
	5.8	Adult intensive care nursing	56
	5.9	Coronary care nursing	57
	5.10	Operating department nursing	57
	5.11	Paediatric intensive care nursing	58
	5.12	Conclusion	58
6.	**The Documentary Analysis: curriculum overview**		59
	6.1	Introduction	59
	6.2	An examination of credit and level	59
	6.3	Theoretical frameworks	61
	6.4	Constituency	63
	6.5	Entry criteria	63
	6.6	Programme structure/shared content	63
	6.7	Theoretical assessments	67
	6.8	Practice assessment	68
	6.9	The ENB 415 programmes	72

7.	**Detailed Analysis of a Sample of Programmes**		**74**
	7.1	Introduction	74
	7.2	Process of drawing out categories	76
	7.3	The themes	79
	7.4	Theoretical assessment	88
	7.5	Differentiating practice outcomes by level	91
	7.6	In summary	92
8.	**The Telephone Survey: clinical managers**		**93**
	8.1	Introduction	93
	8.2	Process	94
	8.3	Results	94
	8.4	In summary	105
9.	**Discussion**		**107**
	9.1	Introduction	107
	9.2	Commonality across the programmes	108
	9.3	Difference between the programmes	111
	9.4	The purpose of the Board's clinical award	116
10.	**Implications Arising from the Research**		**118**
	10.1	Introduction	118
	10.2	Implications	118
References			**121**

Tables

2.1	Curricula returned by programme	19
2.2	Theoretical categories off critical care programmes	21
2.3	The sample of programmes for detailed analysis	21
3.1	Telephone interviewees by programme	24
4.1	Features of graduates defined by institutions; students and employers	34
4.2	Reasons for modularisation	37
4.3	Modularisation: factors of concern for academics	38
4.4	Factors identified as positive outcomes of modularity	39
5.1	Examples of recent policy developments by critical care specialty	50
6.1	Types of critical care programme	58
6.2	Number of programmes run at different levels	61
6.3	Curriculum frameworks: philosophies and models of reflection	62
6.4	Percentage weighting of Board clinical programmes by core generic; core specialist; and cluster modules	65
6.5	Theoretical assessment: highest and lowest assessment demand within each category	67
6.6	Types of theoretical assessments (incidence across institutions)	68
6.7	Frameworks used to gauge progression	70
7.1	The sample of programmes for detailed analysis	74
7.2	Sample of data extraction sheet (ENB 176/183)	77
7.3	Comparison of theoretical and practice outcomes (style)	78
7.4	Comparison of theoretical and practice outcomes (ENB 415)	79
7.5	Categories in 'approaches to care'	80
7.6	Categories in 'aspects of care'	81
7.7	Categories in 'personal development'	82
7.8	Categories in 'wider aspects of the professional role in critical care'	83
7.9	Categories in 'teaching and assessing'	84
7.10	Categories in 'research'	85
7.11	Categories in 'management'	86
7.12	Descriptors only identified at Level 2	89
7.13	Descriptors only identified at Level 3	89

BEST COPY AVAILABLE

Figures

1.1	The iterative process	13
1.2	Timescale of the data collection stages	13
2.1	Framework for detailed curriculum analysis	22
3.1	A conceptual map of the issues raised by the participants	26
4.1	Key issues for discussion in the review	32
8.1	Managers' satisfaction with the competencies and skills of nurses who have undertaken the local ENB programmes	95
8.2	Managers' perception that raising the academic level of the ENB programme has adversely affected the range of clinical competencies the students can acquire	96
8.3	Managers' feedback from students that the ENB programme does not adequately prepare them for practice	97
8.4	Managers' preference an ENB programme to be integrated into a diploma or degree	99
8.5	Managers' perception that too much is expected of themselves and preceptors in terms of practice assessment	100
8.6	Managers' perception that they and preceptors have sufficient input on decisions about passing and failing individual students	101
8.7	Managers' feedback from staff that they do not feel confident assessing students on ENB clinical programmes	101
8.8	Managers' perception that primary concern of the university is the number of students they recruit rather than the quality of the practitioner at the end of the programmes	102
8.9	Managers' feedback from students indicating that they would like the programme to be run at degree level	103
8.10	Managers' feedback from students indicating that they would prefer to have a full-time programme	104
8.11	Managers who would be willing to second students on a full-time programme	104
8.12	Managers who felt that the programme should be set at degree level	105

Key points

- The purpose of the study was to: *'inform the Board's development of national core competencies which could provide a central foundation and promote national comparability in all the Board validated clinical programmes of education'* (ENB, 1997a).
- The researchers analysed 105 of the Board's numbered critical care programmes that were current on 1 April 1998.
- Additional information was gathered by telephone interviews with 84 programme leaders and 81 clinical managers of critical care units to ground the documentary analysis in the real world of critical care practice and education.
- The literature review illuminates key policy and practice issues that directly influenced critical care nursing, course design and delivery.

1.1 Background and context

Critical care is a global term to encompass all settings where patients are cared for when highly dependent and critically ill. Patients are admitted to critical care when they require:

- continuous assessment of detailed physiological function
- rapid and effective intervention in the event of unknown complications
- highly specialised or technical care not possible in other care settings
- if they are highly disturbed patients who are a potential danger to themselves, other patients or health professionals (O'Brien and Alexander, 1985).

Although the notion of what constitutes a critical care setting is now changing (DoH, 1996a; Gibson, 1997) by tradition, critical care environments have included: intensive care units (ICUs); coronary care units (CCUs); high dependency units (HDUs); cardiothoracic units (CTUs); theatres and recovery; burns and plastics; and accident and emergency (A&E) departments. Practitioners who work in these settings require 'appropriate' preparation (DoH, 1996b), which includes the clinical programmes approved by the English National Board for Nursing, Midwifery and Health Visiting (the Board), as well as specialist education provision at diploma, degree and masters level (Endacott, 1996).

Many factors have been influential in the way critical care programmes of education have been constructed and developed; these can be grouped under three key headings:

- the purchaser–provider split for the supply and demand for education and training of health care workers (Klein, 1995; DoH, 1996b)
- factors influencing the structure of critical care programmes and delivery e.g. the integration of schools of nursing into higher education
- factors influencing the changing knowledge base for practice.

All these factors to some extent have influenced the rising academic level of post-registration programmes, which in turn, has influenced course content and the emphasis on specific areas of knowledge and clinical performance.

Traditionally, the Board's clinical programmes prepared practitioners for practice in the specialist environment and clinical managers favoured recruiting practitioners who had

undergone these programmes (Endacott, 1992); they are now used, in part, to facilitate recruitment to units (DoH, 1996b). At the same time, educational providers have been charged with the responsibility to put on programmes that are flexible, accessible and which do not significantly disrupt service provision (DoH, 1996b). This has resulted in students entering programmes with experience of the relevant specialty with the aim of consolidating and expanding their knowledge; and an increase in the number of programmes that enable part-time attendance at the educational institution, rather than full-time secondment.

The independence of educational institutions (Watson and Taylor, 1998), and responsiveness to local need (Klein, 1995), have led to increased diversity in programme content and learning outcomes. Although welcoming local responsiveness and their growing power to influence programme content, clinical managers sought verification of the core competencies they could guarantee from practitioners who had completed a programme at any educational institution (Crunden, 1998). A balance needed to be found between the desire for flexibility, accessibility and responsiveness to local need and a national standard for core competence. However, this problem was not unique to England. Studies in Canada (Fitch et al., 1996); South Africa (Scribante et al., 1996) and Australia (CACCN, 1996) sought to address the question of what constituted core competencies and what could be expected through professional progression in critical care. Such an approach has been embraced by Crouch and Jones (1997) who launched the Faculty of Emergency Nursing through the Royal College of Nursing (RCN). However, the Board is the only organisation that retains a national perspective on the content and quality of the post-registration clinical programmes.

In 1998, the Board commissioned a documentary analysis and literature review of critical care programmes to serve as the first phase of a larger-scale empirical evaluation examining the outcomes of curricular intentions (ENB, 1997a). The aims of the research were to:

- analyse the evidence/research base of curriculum learning outcomes across a range of programmes
- provide evidence of the extent to which there is national comparability in terms of knowledge and clinical competencies
- explore the relationship between theory and practice in assessment strategies.

The documentary analysis was to include an exploration of the learning outcomes relating to multidisciplinary/multi-agency teamwork, rehabilitation and health promotion.

The purpose of the study was to: *'inform the Board's development of national core competencies which could provide a central foundation and promote national comparability in all the Board validated clinical courses'* (ENB, 1997a). This report is an edited version of the full report submitted to the Board. The research instruments are available from the research team at the University of Brighton.

1.2 Introduction to the project

There is a vast range of programmes for practitioners working in critical care environments; five examples were selected from the Board's database (ENB, 1996a) for inclusion in the study (a total of 152 programmes). These were selected because they were the most frequently-occurring programmes around the country and, it was deduced, the programmes in greatest demand:

- Intensive Care Nursing (General) (ENB 100); 40 programmes
- Coronary Care Nursing (ENB 124); 33 programmes

- Operating Department Nursing (ENB 176); 27 programmes
- Accident and Emergency Nursing (ENB 199); 39 programmes
- Paediatric Intensive Care (ENB 415); 13 programmes.

It was found that many of the institutions who were contacted had revised their ENB 176 programme to include anaesthetics and recovery nursing, known as ENB 183. As many of these programmes had shared content, both were included in the analysis.

1.2.1 The research questions

A number of issues were fundamentally influencing the provision and delivery of critical care programmes. The key questions which arose from the research aims could be conceptualised under the themes below.

Integration into higher education

In what way has the shift from the traditional hospital base into the university system influenced programme design and delivery? What other factors have influenced their design and delivery? How have these factors influenced their national comparability?

Academic level

What is the academic level to which critical care programmes are pegged? What type and number of credits does each programme attract? How does this influence programme content and the stated learning outcomes? To what extent has this been influenced by local phenomena, e.g. the diversity of clinical practice undertaken in any one setting or the academic institution in which the programme resides?

Comparability of Board programmes

What can one expect of a critical care programme, i.e. what is the 'gold standard' of a Board clinical award?

Shared learning

What type of knowledge is shared and what is exclusive to programmes for different critical care settings/specialties? How does this differ around the country?

Practice assessment

How has the introduction of clinically-based programmes at a higher academic level influenced the way in which practice is assessed? What is similar and what is different in terms of the stated practice learning outcomes of diploma or degree credits?

Evidence base of learning outcomes

What is the evidence/research base of the stated learning outcomes? Is this evidence specific or applied to critical care settings? What is the source of this evidence and what weight is it given in the assessment of theory and practice?

1.2.2 Grounding the project in the 'real world'

The research team felt that the literature review and curriculum analysis should be grounded, as far as was practical in a one-year project, in the 'real world' of educational and clinical practice. To achieve this four measures were taken:

- a telephone interview with critical care lecturers to identify the issues they faced

- a telephone survey of clinical managers to illuminate their concerns and issues
- the use of four focus groups with key stakeholders (representing management, education, and practice)
- the appointment of three clinical consultants to advise the research team throughout the project.

The original research brief called for a systematic literature review. However, it became evident from early examination of the data that this would not provide the type of material that could contribute to an understanding of critical care programmes in England. Our ambition to: *'analyse the evidence/research base of curriculum learning outcomes across a range of programmes'* (ENB, 1997a) was not feasible because of the diversity of the learning outcomes. In some cases, outcomes were extremely detailed and appeared in large volume, in others, they were written in such an abstract way they could capture most situations but did not specify one in particular. In whatever style they appeared, none of the outcomes specifically cited research evidence which supported their inclusion in the curriculum. Indeed, it emerged (through the telephone interviews) that some of the outcomes we were analysing had already been revised. Therefore, to pursue the research/evidence underpinning the outcomes of 'historic' curricula would be pointless. However, there was a purpose to analysing the documents: to map the way in which curricula were evolving and alert policy-makers, practitioners and lecturers to the pertinent issues and how they were being addressed at a national level; it is hoped that by bringing together multiple perspectives (although the students' voice is notably absent from this report), each stakeholder will gain a greater understanding of the national picture.

It was evident throughout the research process that critical care programmes were to be subject to even more change: many lecturers and clinical managers were in the process of deliberating at which level to set programmes; many curriculum teams were considering redesigning their programmes to fit practitioners for specialist practice; and many lecturers articulated the pressures that they encountered from being within a changing and expanding higher education sector. The programmes were also being pulled in all directions in an attempt to make them responsive to all stakeholder groups.

If anything, this study maps a picture of chaos and raises more questions than it answers. The chaos and rapid pace of change also raises issues about the replicability of the project; if one attempted to do so by requesting current programme documentation, one would find significant changes to the material. Indeed, so much change was reported to be taking place that the project team had to specifically request curriculum documents that reflected content and delivery for 1 April 1998.

If researchers wanted to undertake a secondary analysis of the programme documents, significant ethical issues would require resolution. The documents were gathered on the strict premise that they would only be seen by the research team and for the purposes of this research. Therefore, consent would have to be gained from all study participants for this material to be reviewed by others. Secondary analysis would involve documents that are historic; the purpose of this would be questionable if the intention was to contribute to the current debate about critical care education. Finally, the documentary analysis was supplemented by the iterative process (Figure 1.1); while displaying data and analysing material, the research team checked any ambiguities within the programme document with the lecturers; reviewed the literature for similar issues which subsequently informed the analysis of the curriculum; reviewed new documents which then informed the analysis of other documents, and so on through the project. However, interpretation of issues raised in this way gave rise to different accounts by lecturers within the same organisation. This illustrates Hodder's point that documents *'may have local*

BEST COPY AVAILABLE

uses that become very distant from officially sanctioned meanings' (Hodder, 1994: 393), and that *'meaning does not reside in the text but in the writing and reading of it'* (Hodder, 1994: 394). With this in mind, the research team have taken every effort to describe in detail aspects of the analysis which have led to unresolved uncertainty throughout the report.

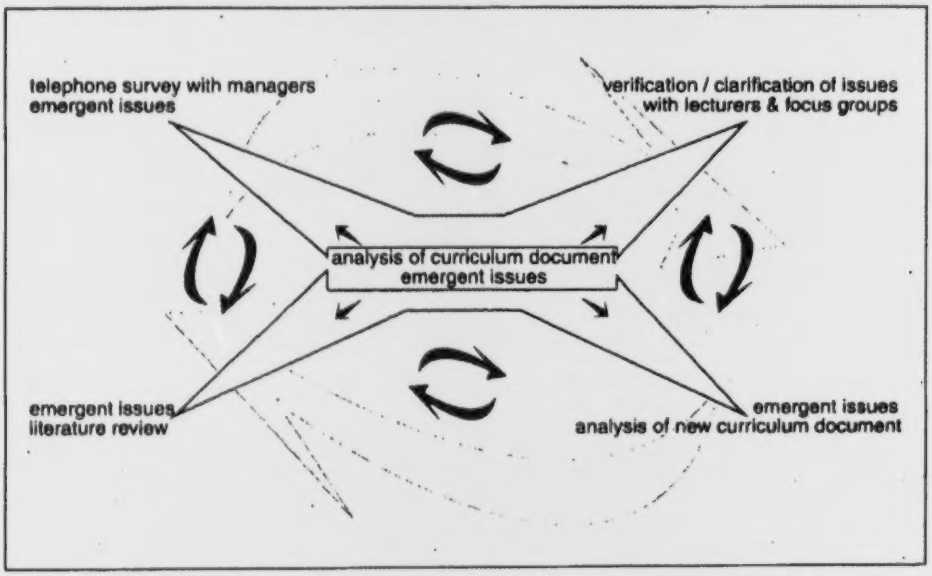


Figure 1.1: The iterative process

The texts used to inform the literature review were also of their time; subsequent searches would yield a significant shift in the deliberations and issues raised. Although central to the world of the participants at that time, factors that were illuminated within the iterative process by the lecturers and focus groups, and by clinical managers in the telephone survey, were not necessarily evidenced in the literature (e.g. at what level – degree or diploma – Board clinical programmes should be set). This might in part be due to the extreme workload pressure that lecturers identified, which prevented them from researching and publishing (CHD, 1997). However, external influences could include: increasing competition for publication (Johnson, 1996); decisions by editors that topics were too colloquial (Birchenall, 1997); and the long delay between manuscripts being accepted for publication and going to press (Birchenall, 1994). Whatever the cause, the literature in this report, however current at date of publication, represents a lived-world experience that is already in the past.

The timescale of the various data collection stages is outlined in Figure 1.2.

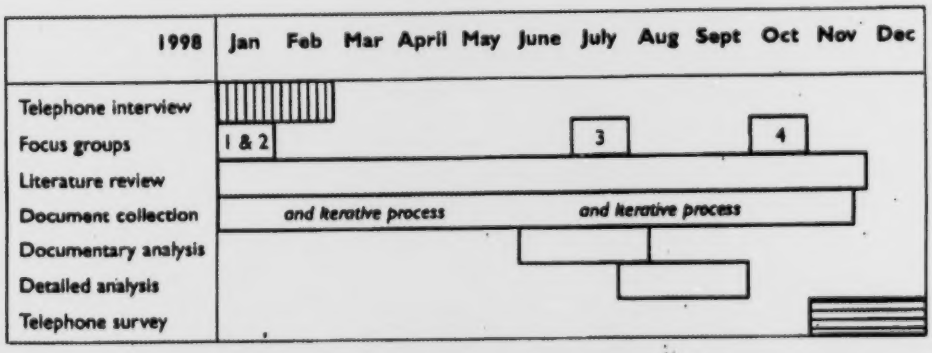


Figure 1.2: Timescale of the data collection stages

1.3 An overview of the report

Having outlined the limitations of the study and noted some methodological issues needing to be addressed, this section highlights the key issues explored in each chapter of the report.

Chapter 2 outlines the methods and processes used to analyse and present the data. It includes a detailed description of the process to inform an audit trail and map out a method of curriculum analysis, a topic that receives scant attention in the literature.

Chapter 3 presents the findings from the telephone interview. It precedes the literature review because the data from this phase of the study fundamentally influenced the shape of the rest of the project. It maps out the factors influencing the design and delivery of programmes by the primary authors of the curriculum: the critical care lecturers.

Chapters 4 and 5 set the curriculum analysis in context by presenting a comprehensive review of the relevant literature. Chapter 4 examines the key policy directives that have shaped the expanding higher education sector and how this has influenced the provision of nursing programmes. Chapter 5 addresses factors that have influenced nursing in the 1990s and, in particular, critical care practice in the five key areas that are the subject of this study.

The report then addresses the curriculum. Chapter 6 presents an overview of all the programmes (n = 105) submitted to the research team, identifying the different frameworks, structure and elements within and across institutions. Chapter 7 examines in detail 44 of these programmes and specifically examines their learning outcomes, the different levels at which programmes are set, how those levels are differentiated, and the range of theoretical and practice-based assessments used on the different programmes.

Chapter 8 presents the findings from the telephone survey with critical care managers (n = 81), aiming to illustrate how the diversity evident in programme curricula is perceived by clinical managers.

Chapter 9 draws together the key issues raised from analysis of the data and discusses these in relation to findings from recent research studies in the area. Chapter 10 presents the developmental implications for current and future education and for further research.

Each chapter is preceded with key points to assist the reader in steering through the complex issues raised and the quantity of data presented. Some methodological detail is expanded in other chapters addressing specific phases of the project, especially where examples from the data help to explain the process.

Key points

- Data were gathered by: telephone interview; documentary analysis; comprehensive literature review; and telephone survey.
- Data collection and analysis ran concurrently, with each phase of the study influencing the next stage of the project and new data influencing the analysis of preceding data. This cycle was continued up to the final synthesis of all the data discussed in Chapter 9.
- To ground the research in the real world of critical care practice the research team were informed by: the iterative process with lecturers; clinical consultants and four focus groups.
- Emergent data from the documentary analysis, telephone interview and telephone survey influenced the search for relevant UK based literature from 1992 onwards and the codes and categories into which that data were sorted.
- The literature review was conceptualised into two themes: factors influencing the provision of critical care education; and factors influencing critical care practice.

2.1 Introduction

This chapter outlines the methods used in this study. The literature review is addressed first, followed by a description of the focus groups used to inform the telephone interviews with lecturers, the documentary analysis and finally the telephone surveys with clinical managers. Although the methods are outlined separately, the processes were inextricably linked; where this was the case it is outlined. The methods and processes have been described in some detail to make an audit trail explicit (Denzin, 1994; Miles and Huberman, 1994).

The purpose of the audit trail is to ensure that readers can identify the project's conceptual development (Morse, 1994). It makes explicit the stages of the process including how the data were aggregated, reduced, partitioned, displayed, analysed, and interpreted (Miles and Huberman, 1994); and should allow others to reconstruct the process by which the researchers reached their conclusions (Schwandt and Halpern, 1988).

2.2 The literature review

As outlined in Chapter 1, the original intention to conduct a systematic literature review was changed in favour of a comprehensive literature review. To clarify this stance, a definition of terms is presented followed by a list of factors emergent from the data which required this shift in approach.

2.2.1 The systematic review

The systematic review has a distinct approach to the overview of primary studies. It contains an explicit statement of objectives, materials and methods and is conducted according to explicit and reproducible methodology. The primary research included in the review is subjected to rigorous scrutiny to eliminate studies that do not conform to set criteria (e.g. sample size, sampling method, methods). These features mean the systematic review tends to focus upon reviewing randomised control trials; it includes all literature on the subject and the researchers trace the references and contact researchers/authors to ensure comprehensive cover

of all available material. The aim is to limit bias, generate reliable and accurate conclusions, assimilate large amounts of information into easily-accessible forms, and to compare for generalisability and consistency. Quantitative systematic reviews (meta-analyses) aim to increase the precision of the overall results (Greenhalgh, 1997).

2.2.2 Rationale for a comprehensive literature review

It became apparent that a systematic review would not be appropriate for the following reasons:

- The learning outcomes (and indicative content) in each programme (n = 105) were written in such a diverse style. This seemed to be more informed by the educational institution's modular formula than any other factor (lecturers' telephone interviews (n = 84); focus groups (14.1.98; 26.1.98) and curriculum analysis). The research team did not believe that specific outcomes could be elicited to trace and conduct a systematic review which would be meaningful to the Board.
- Most programmes had at least 50% of their theoretical component dedicated to self-directed learning set by the student or guided to meet theoretical and practice assessments. The indicative reading tended to reflect seminal texts rather than specific research evidence, meta-analyses, systematic reviews, guidelines or journal articles. Therefore, there was insufficient detail from the curricula to set specific objectives and methods to interrogate the literature by systematic review.
- The broad literature did not identify specific competencies or learning outcomes for critical care programmes in nursing. A few papers and theses did explore this, and indeed the grey literature (recent PhD and MPhil research by critical care lecturers) was far more rewarding in meeting this aim. However, this material was not available in sufficient scale to lend itself to the methodological sampling frame of the systematic review.

2.2.3 The comprehensive literature review

The comprehensive literature review is a more discursive and exploratory approach than a systematic review, but does not compromise thoroughness and rigour (Sapsford, 1994; Mason, 1994). Although critical and analytical about the material included in the discussion, it does not necessarily eliminate literature on the basis of the methodology of the study (Greenhalgh, 1997). The purpose of this literature review was to put in context the documentary analysis by outlining the policy issues affecting the provision of education, and by identifying the policy directives which had influenced critical care practice.

For the purpose of this study, the themes and categories derived from curriculum analysis, telephone interview and focus groups shaped the comprehensive literature review (following a similar approach advocated by grounded theorists: Glaser and Strauss, 1967; Strauss and Corbin, 1990). This meant that a broader range of relevant material could be included to set the programmes in context. The central question guiding the review was: to what extent are current issues reflected in, or shaping, critical care programmes?

2.2.4 The literature review process

In January 1998 a literature search was conducted on the following databases: MEDLINE; CINAHL; BRTT (British Reports Translations and Theses) SIGLE (Systems for Information on Grey Literature in Europe); and the Nursing and Midwifery Index. This search yielded 1,042 articles using the following key words: critical care, education, training and

competency. From this list, articles were selected on the basis of relevance of title to nursing and accessibility, i.e. written in English, Dutch or Spanish (some students at the researchers' university study these languages as part of the pre-registration European Nursing Studies degree programme). A library assistant was appointed to retrieve and photocopy 402 selected articles to inform the first stage of the literature review; this was completed in April 1998.

The abstract for each article was read and the material was grouped under categories relating to the key clinical environments: paediatric intensive care (42); emergency nursing (69); operating department nursing (82); resuscitation (41); adult intensive care (143); coronary care (5); generic professional issues relevant to critical care (23).

These were then subdivided into emergent themes within each specialty, for example, aspects of the role; role expansion and innovation; educational developments in the specialty; competency-related issues; professional issues pertinent to that specific group of practitioners; topics related to specific client needs. This material was then supplemented by recent and relevant material in the possession of the research team. Two members of the team who had not participated in the process thus far, checked and amended the categories of some papers then re-validated each theme.

The process of reading and extracting information from each paper was then undertaken. It became clear that the material was mainly discursive in nature, many papers were positional rather than research-based. More importantly, the over-representation of North American literature meant that most of the emergent data did not bear direct relevance to the UK. At the same time, the telephone interviews were completed and these data were being analysed which raised further doubts as to the usefulness of the systematic review (see Chapter 3).

The literature review was divided into two distinct categories: policy directives and issues in the literature affecting education, and policy and literature influencing practice.

2.2.4.1 Education

A search of all recent policy directives, research evidence and published conference proceedings related to higher education was undertaken in the Academic Standards and Strategic Planning Department of the University of Brighton. This was to ensure that all policy documentation circulated to the higher education sector was included in the review; it revealed 28 documents published since 1996. These data were supplemented by a CD-ROM search of nursing and midwifery literature related to programme provision, integration into higher education and modularity. This search retrieved 77 references; key sources included: *Nurse Education Today*, *Journal of Continuing Education in Nursing*, *Journal of Advanced Nursing* and some scattered papers in specialist journals e.g. *Accident and Emergency Nursing*, *British Journal of Theatre Nursing*, *Journal of Emergency Nursing*, *Intensive and Critical Care Nursing*, *Nursing Outlook*, *Nursing Management* and *Nursing Times*.

Each paper was read and data were extracted that had direct relevance to the issues arising through the iterative process. This was supplemented by a review of all editorials in *Nurse Education Today* to capture the main themes and ideas presented by the journal. Although it is recognised that the agenda set by the editor might reflect individual bias and the bias of the readers, it did yield some useful insights into current issues.

2.2.4.2 Practice

The literature was reviewed in order to provide a backdrop for the curriculum review and to set the critical care programmes in their appropriate clinical context. A hand search of all

relevant English journals of critical care was conducted. Because of the nature of critical care and the rapid advances in technology and modes of therapy, a deliberate decision was made to gather literature from 1992 onwards. However, in some instances it was appropriate to review earlier documents (in particular policy documents) to provide context for current working practices or role configurations.

Journals covered included: *Accident and Emergency Nursing*; *Emergency Nurse*; *British Journal of Theatre Nursing*; *Intensive and Critical Care Nursing*; and *Nursing in Critical Care*.

2.2.5 Criteria for inclusion in the comprehensive literature review

The following criteria were used when reviewing material for inclusion in the literature review:

- the material was UK-based because initial review of the clinical literature emphasised the differences between the US and UK in the nature of nursing practice and the configuration of the multiprofessional team (Endacott, 1996)
- the material was relevant to the design and delivery of critical care programmes
- the material illuminated or examined current issues affecting critical care practice
- all articles came from peer reviewed journals
- editorials were used to highlight current issues debated in the literature and these issues were then pursued by searching for evidence in articles, reports and policy directives
- selection of material for inclusion in the review was based upon the professional judgement of the researchers, although material based on anecdote or without any apparent evidence base were excluded
- the material was sorted into themes and categories which were verified by the clinical consultants and an independent consultant (responsible for policy and practice at the RCN)
- additional material was included in response to recommendations made by the Steering Group.

2.3 The telephone interview: lecturers

The template for the telephone interview was developed from two focus groups held with lecturers in institutions outside the research team's locale and from discussion with the clinical consultants to the project.

2.3.1 Focus groups

Two focus groups were held in January 1998 with lecturers who represented: A&E, theatre, adult intensive care nursing and coronary care nursing. The issue for exploration in both groups was: what factors influenced the way they designed and delivered critical care programmes? The discussion lasted for one hour, notes were taken and analysed to identify the key questions that should be included in the telephone interview with the lecturers around the country. The interview schedule was piloted on local lecturers and the clinical consultants.

2.3.2 The sample

The sample was identified from the Board's database (ENB, 1996a). This listed a potential of 152 programmes for: Adult Intensive Care Nursing (ENB 100); Coronary Care Nursing (ENB 124); Operating Department Nursing (ENB 176); Operating Department and

BEST COPY AVAILABLE

Recovery Nursing (ENB 183); Accident and Emergency Nursing (ENB 199); and Paediatric Intensive Care Nursing (ENB 415). All programme leaders associated with these programmes were contacted.

2.3.3 The telephone interview: method

The Board's database (ENB, 1996a) listed colleges of nursing prior to integration into the higher education sector, so the *NMAS Applicant Handbook* was used to locate the telephone numbers of the universities.

A total of 256 telephone calls were made to identify the locality and name of the appropriate programme leader. Only 10 lecturers were contacted directly on the basis of being transferred through internal telephone systems. A further 192 calls were required to contact the final 84 lecturers who participated in the project. In the absence of speaking directly to the lecturer, messages were left with secretaries, on voice mail or on answer phones (four documents were returned by this method).

Key issues addressed in the telephone interview included:

- outline of the project and request for the participant's involvement in the study
- identification of the programmes run at that locality (and where necessary, the names and addresses of other lecturers who should be contacted)
- identification of a named person who had the institutional authority to consent to the release of the documents
- the name of key people in the clinical environment to whom the research team could speak in the managers' survey
- the key changes currently affecting the delivery of the programmes, or factors informing current or future curriculum development/modular revisions.

This information was recorded on a data sheet. A letter was then sent to each lecturer formally requesting programme documentation and giving more details about the research. Additional calls were necessary when the research team was advised to speak to pathway leaders or another key stakeholder who could grant permission for the release of documents. It took six months to request and receive the curricula used in the analysis.

	ENB 100 [ITU]	ENB 124 [CCU]	ENB 176/183 [OD]	ENB 199 [A&E]	ENB 415 [PICU]
ENB 1996 records	**40**	**33**	**27 – 176**	**39**	**13**
Telephone contacts	38	32	30 – 176/183	38	12
Permission denied	1	1	0	1	0
No current programmes	2	2	2	2	0
No response	6	6	9	9	4
Returned	**29**	**23**	**9 – 176 10 – 183**	**26**	**8**

Table 2.1: Curricula returned by programme

2.4 Documentary analysis

In total 105 programme curricula were returned by 30 institutions. Twenty-six institutions returned their full portfolio of requested critical care programmes; four returned specific programmes only. Each programme was coded by institution and programme number e.g. 2: ENB 183; 30: ENB 199.

Data from all 105 programmes were extracted to elicit the following:

- taught hours/student effort
- the level at which the programme was run
- the number of credits attached to the award
- the curriculum model
- the nursing model
- constituency for whom the programme was written
- entry criteria
- practice experience for entry
- programme structure
- shared content
- number and type of outcomes
- theoretical assessments: type and word limits
- practice assessment: type and methods.

The majority of critical care curricula were bound together in the same validation document. Although large and weighty, the full document was invaluable to make sense of the programmes, identify how the modules and module options made up the programme, identify shared learning, and how the Board's clinical programmes fitted into the overall framework of a diploma/degree offered by the institution. Where only module outlines and practice assessment documents were returned the research team invariably found it necessary to request more information.

Documents must be located to the context from which they originate. They can be the subject of patterned similarities and differences. Although material culture may not be able to speak back, they can be made plausible by internal and external social criteria (Hodder, 1994). In this case the iterative process helped to locate the written documentation to the context and reality of the 'lived' curriculum, as perceived by the lecturers in the institutions from which the documentation originated.

From this overview of the curriculum it became apparent that there were six theoretical categories of critical care programme (Table 2.2).

Category	Definition	Code
A	ENB Award [30-90 credits at Level 2] (configured to part of a diploma)	2 P
B	ENB Award configured as a full diploma	2 F
C	ENB Award [Part of a degree/diploma] run at Level 2 or Level 3	2/3 P
D	ENB Award configured as either a full diploma or degree	2/3 F
E	ENB award [60-90 credits at Level 3]	3 P
F	ENB Award/ Specialist Practice – configured as a full degree	3 F

Table 2.2: Theoretical categories of critical care programmes

The researchers selected the complete portfolio of critical care programmes for two institutions from each of the main categories (A-E) for detailed analysis (Table 2.3). Category F was not included as only one institution offered all their Board programmes configured to a full degree. The sample was in some cases self-selecting i.e. due to the limited number of programmes within each category e.g. categories B and D. Where a category was saturated by potential candidates e.g. categories A and C, the documents were selected on the basis of the 'completeness', and the range of programmes offered within that institution. Despite this framework the researchers had to selectively sample five paediatric programmes for detailed analysis.

Category	Institution	ENB 100	ENB 124	ENB 176	ENB 183	ENB 199	ENB 415
A – 2 P	5	✓	✓	–	✓	✓	–
[30-90 @ 2]	6	✓	✓	–	✓	✓	–
B – 2 F	16	✓	✓	✓	–	✓	✓
[120 @ 2]	21	✓	✓	✓	✓	✓	–
C – 2/3 P	1	✓	✓	–	✓	✓	–
[30-90 @ 2/3]	15	✓	✓	–	✓	✓	–
D – 2/3 F	14	✓	✓	–	–	–	–
[120 @ 2/3]	25	✓	✓	–	–	✓	–
E – 3 F	2	✓	✓	–	✓	✓	–
[30-90 @ 3]	8	✓	✓	–	✓	✓	–
Total		10	10	2	7	9	1 + 5

Table 2.3: The sample of programmes for detailed analysis

These programmes were subjected to critical review and comparison of their learning outcomes, content, philosophies and comparison of how they differentiated theoretical and clinical performance at Levels 2 and 3. Figure 2.1 illustrates the framework for the detailed analysis.

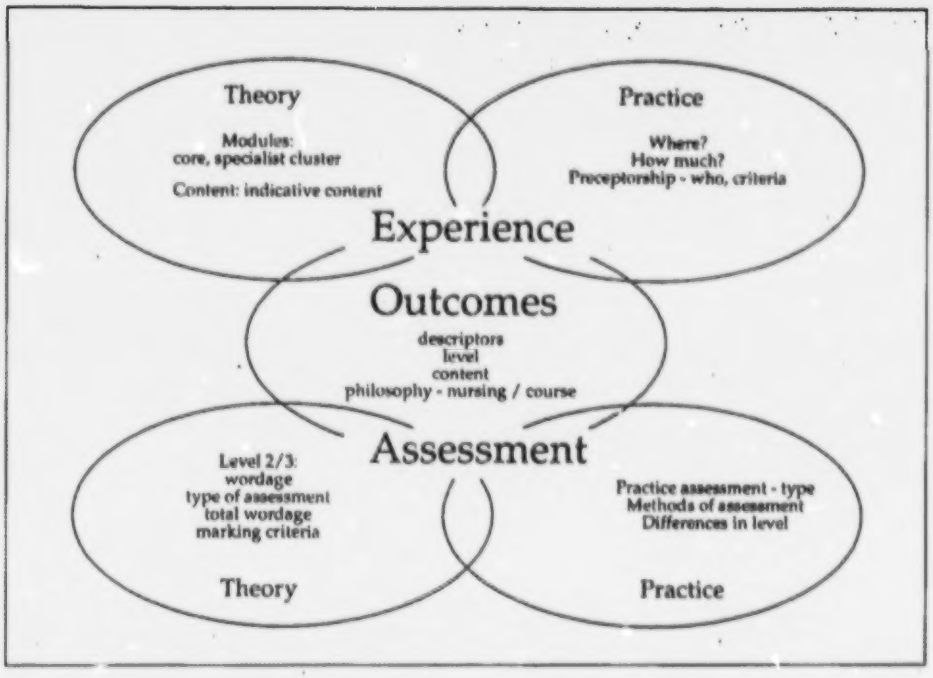


Figure 2.1: Framework for detailed curriculum analysis

2.5 The telephone survey: clinical managers

The topics included in the telephone survey were informed by the analytical process explained thus far. However, the deliberative focus of inquiry was assisted by the content of two further focus groups: one with a group of 23 managers representing a region; the second with nine members of an executive committee of a critical care organisation.

In the second focus group the survey was 'piloted' and some questions were revised in the light of feedback from this group. The revisions were set before the clinical consultants, and then were piloted on three local managers over the telephone.

Topics examined with clinical managers included:

- their satisfaction with the competencies and skills of practitioners undertaking the programmes
- factors influencing learning in the practice environments
- issues arising for preceptors and assessors
- how the programme met local service needs.

In total 102 clinical managers were contacted from the clinical environments served by the programmes we had analysed (excluding the local managers to the University of Brighton who were involved in the pilot).

A letter was sent to the managers one week prior to the telephone survey outlining the purpose of the project and inviting their participation. This approach yielded an 80% response rate to the telephone survey.

The way in which data were aggregated, displayed, analysed, and presented in each phase of the study are further elaborated in each chapter presenting the findings.

Key points

- The telephone interview is a useful method of contacting participants who are unknown by name and who are spread over a large geographical area.
- A number of ethical issues raised by the telephone interview method required careful consideration prior to starting the process.
- The telephone interview established rapport between the lecturers and researchers which proved invaluable to facilitate the iterative process necessary throughout the analysis of the curriculum.
- Vital information was provided through the telephone interview to ground the documentary analysis in the changing context in which it was situated.

3.1 Introduction

This chapter focuses on the telephone interview conducted in January and February 1998 with critical care lecturers and pathway leaders in the eight health regions in England (n = 84). Some of the debate is informed by two focus groups held with different stakeholders.

The purpose of the telephone interview was two-fold: to request the submission of curriculum documents to the research team, and to gather some contextual detail about what was influencing the content and delivery of the programmes.

3.2 The telephone interview: method, ethics and sample

The telephone interview is a relatively cheap and effective way of capturing the opinions of people spread over a large geographical area (Barriball et al., 1996). It allows researchers to access a specific target population and its immediacy increases the response rate (Robson, 1993). It is a speedy method for gathering a lot of information (Dillman, 1978), and ensures that researchers can make clear their intentions and put right any obvious misunderstandings in the questions (Robson, 1993). It may be difficult to ascertain rapport with participants, but a relaxed telephone manner and verbal cues that express interest in the conversation can assist with the flow of dialogue (Barriball et al., 1996). Observer effects are reduced as is the tendency to make socially acceptable responses (Bradburn and Sudman, 1979).

3.2.1 Ethics

Unlike the telephone survey with the clinical managers at the end of the project, the researchers were not in a position to write and alert people that they would be contacted. The research team did not have specific names and locations of the critical care lecturers, as the Board's database (ENB, 1996a) listed colleges of nursing prior to integration into universities. Therefore, part of the process was to find the right person to contact requesting the release of programme documentation.

The opening introductory remarks had to convey clearly and concisely the researchers' intentions and purpose. Although participants did have some control over responding, they were not in a position to have deliberated over written material to make a fully informed decision about participation. Furthermore, this process bypassed 'institutional gatekeepers' and

formal institutional channels that a researcher would normally have to negotiate to gain access. Naively, the researchers assumed that this would only have to be done if the curriculum documents were to be released, but this proved not to be the case for some. One lecturer wrote back stating:

> *'I apologise profusely for not getting in touch earlier but ... I needed to await permission to talk to you.'* (NT [29]: 3.4.1998)

This quotation highlights a concern of the telephone interview method: there is a risk that when busy people are approached by telephone and do not see their comments being documented they forget they are taking part in a research study and disclose information they should have withheld until formally sanctioned to do so. However, lecturers did seem to be aware of this issue; some freely discussed matters with the affix *'I probably shouldn't being saying this but ...'*, while others added the caveat of: *'don't quote me!'*; or *'don't write that down'*; and: *'you didn't hear that from me!'* When this was the case, these issues were omitted from the notes. However, some lecturers who participated in the survey did not submit their programme documents (lecturers from five different institutions, although in some cases, other programmes from those institutions were resubmitted).

In total, 42 educational institutions were contacted which ran critical care programmes and six others which did not. The Board's database (ENB, 1996a) indicated a target of 152 programmes for the sample. Two institutions from that database were not currently running their programmes. The programme lecturers from eight institutions did not respond to either messages or letters, and two other institutions formally sent their apologies. In total 84 lecturers took part in the telephone interview. This approach enabled the researchers to gather 105 out of the 152 possible programmes (69%). The research team believe this response was significantly influenced by making initial telephone contact with the relevant personnel and ironing out any anxieties that they were releasing documents to a 'competitor' and assuring them of complete confidentiality.

Adult Intensive Care (ENB 100)	27
Coronary Care (ENB 124)	11
Theatres and Recovery (ENB 176/183)	16
Accident and Emergency (ENB 199)	20
Paediatric Intensive Care (ENB 415)	6
Pathway Leaders	4
Total	**84**

Table 3.1: Telephone interviewees by programme

3.2.2 Interview questions

Lecturers who participated were asked the following questions:

1. Which of the following programmes are currently run by your university (ENB 100; ENB 124; ENB 176/183; ENB 199; ENB 415)?
2. Can you give me the name and contact number for lecturers who run the other programmes?
3. Was your college of nursing known by any other name before integration into this institution? If so, what was that name?

27 BEST COPY AVAILABLE

4. When you integrated into this university did you do so with another college of nursing? If so what was the name of that college of nursing?
5. Are your critical care programmes now centralised onto one site? Yes/No (List the sites also running the programmes).
6. Are you working towards any significant changes in your current programmes? Yes/No (List the changes identified).
7. In the next phase of the study we plan to talk to clinical managers in your main clinical area. Can you identify the name and contact number for one of the managers you would recommend we approach?
8. Is there anyone else we should contact in writing to gain permission for the release of the programme documents? (List the name and address).
9. Would you be willing for us to contact you again to clarify any issues arising from the documents you send? Yes/No.

This final question proved to be very important. As analysis of the programme documents began some contradictions and anomalies were found. For example, the concept of the 'virtual module' was introduced; this is a module which is not run but is included in the programme documentation so that students may undergo accreditation of prior learning (APL) and experiential learning (APEL) against that module outline. Before this was explained, it appeared that students had to attain more module credits than made up the clinical award, e.g. an ENB 100 required 70 Level 3 credits, but with the 'virtual module' it looked like students had to attain 90 Level 3 credits to achieve the award. Also, some educational institutions had different structure and CAT rating systems e.g. the MODCAT system, whereby 30 CAT points at Level 2 makes up a diploma; 30 MODCATs make up a degree (with modules run at 2.5 credits). Some institutions did not recognise Level 1 or 2 credits and therefore their degree was set at 360 Level 3 CAT points. This information had to be confirmed verbally, as it was not stated in the definitive document.

Most of the issues were revealed through Question 6: Are you working towards any significant changes in your current programme?

3.3 Lecturers' accounts of factors influencing curriculum design and content

The key issue raised by participants was that constant change had become their new master. Therefore, the issues raised needed to be contextualised to the time at which the data was gathered (January-February 1998). The pace of change may mean that some of these points are already historic. Five key areas of influence were identified:

- factors created by integration into higher education
- responding to purchaser requests and concerns
- internal curriculum issues
- responding to the needs of the local practice environments
- predicting the future of specialist practice and other profession-based concerns.

Within each of these areas, there were a number of influential factors (Figure 3.1).

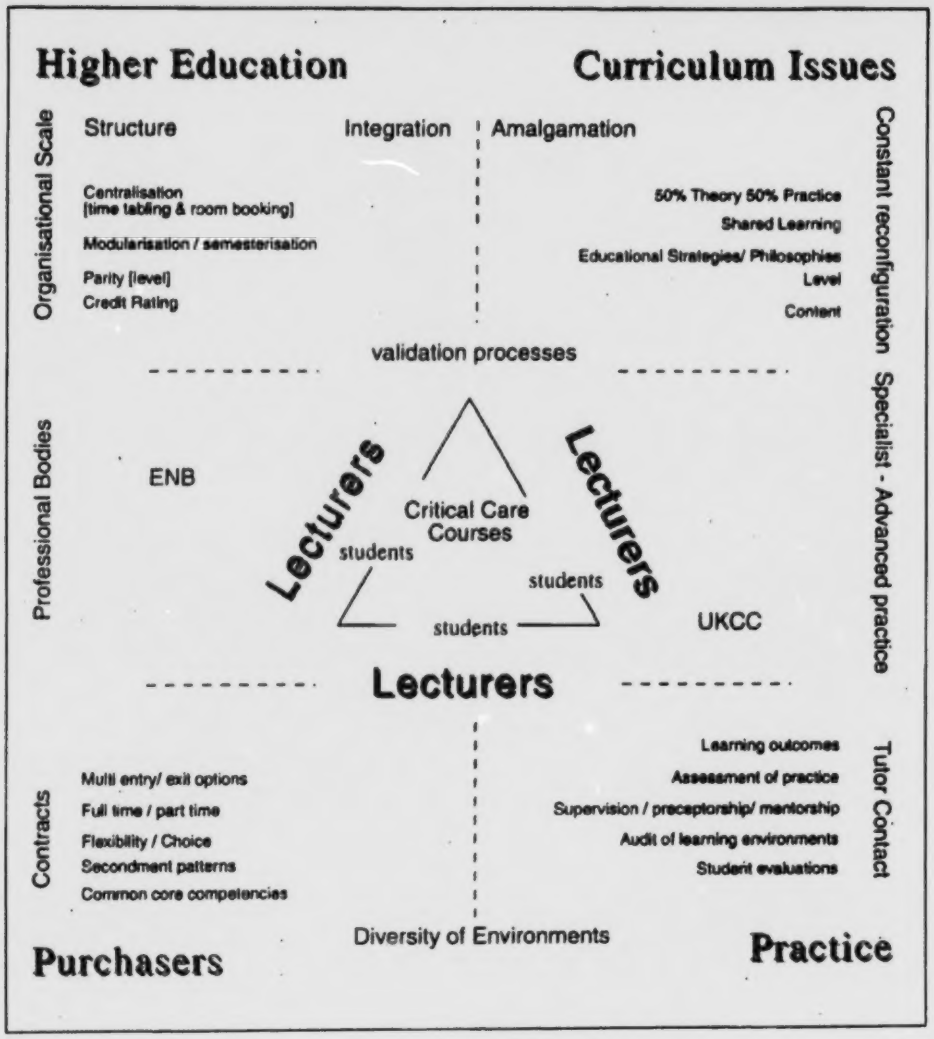


Figure 3.1: A conceptual map of issues raised by the participants (Scholes and Chellel, 1999)

The main themes from the telephone interviews were:

- responding to the structural frameworks for curriculum required by higher education
- getting practice recognised by the educational institution
- a growing number of programmes being raised to Level 3 in the near future
- balancing shared and dedicated programme content
- creating modules and programme content which could accommodate the increasingly diverse range of clinical environments from which students came into the programme on day release
- developing practice assessment documentation that suited the needs of a diverse range of environments
- the difficulties in maintaining clinical links with a growing number of units (because students were on day release)

- the tension created by trying to balance the need to undertake research, teaching and maintaining clinical links
- pride in surviving all the pressures and keeping the programmes running.

3.3.1 Higher education

Integration into higher education (a process completed throughout England by 1997) was only one of a series of organisational changes lecturers had experienced over the past decade. Lecturers described how, each time the organisation changed there was some new demand on the provision and delivery of the critical care programmes. This however 'paled into insignificance' relative to the redesign and reformulation of the critical care programmes in response to the demands of modularisation and semesterisation (NT, 15: 100). At the same time, the CAT system meant that each module had a specific weighting and the content and learning outcomes to fit that module for its relative weighting had to be matched. However, lecturers identified that one of the greatest demands was when they experienced 'bounce' in terms of the weighting for any given module, raising and dropping the credit rating according to new directives from the institution.

The lecturers who participated in the two focus groups described an overwhelming proportion of their time dedicated to the preparation, marking and various verification and ratification processes that was taken up by assessment. Modules designed to increase flexibility, enhance student choice, and reduce replication had become the engines which drove the lecturers into increasing amounts of paperwork, away from the practice environments and even the classroom. Although alluded to by telephone interviewees when first contacted, the enormity of the problem was made much more explicit in subsequent discussions during the iterative process.

Lecturers expressed concern about the demands placed upon them by entering into the higher education sector. They felt that the casualties of these pressures were their own research and links with all their clinical environments – a tension recognised by the Council of Deans and Heads who identified that: *'it is likely that initial contract negotiations may have miscalculated overall demands on staff who are expected to pursue research and sustain contacts with clinical services as well as teach'* (CHD, 1997: 2). The Council urged *'a standing conference to regularly assess the feasibility of funding education which sustains research performance and teaching in universities and in clinical practice'* (CHD, 1997: 8). A note of hope for the future.

3.3.2 Curriculum issues

Since 1989 the Board has advocated shared learning to avoid repetition and duplication of programme content (ENB, 1989). This has become more common since the introduction of the Framework and Higher Award (ENB, 1991), and programme modularisation. Modules are now labelled as core generic (shared by anyone undertaking a health care programme); specialist (shared by critical care programme students); or cluster modules focusing on the acquisition of knowledge and skills for one specific critical care environment e.g. adult or paediatric intensive care. The lecturers identified that shared learning was contentious:

> *'Shared learning with the adult ITU has been necessary for the small number of our students, but because they are in the minority, the paediatric focus tends to get blurred.'* (NT, 23: 415)
>
> *'Shared learning is a problem as the amount and emphasis on the generic aspects to critical care has minimal relevance for theatres. The students need specific teaching. The focus on care of the ventilated patient is quite*

different for ITU, A&E and theatres. The emphasis shifts dependent on where you are applying the concept. For example, in A&E it's about emergency intubation; for ITU the emphasis is on long-term issues associated with ventilation and in theatres it's about the effects of anaesthetic drugs and recovery ... [But] sharing for research is not a problem.' (31: 176)

'I do not believe shared learning is working. Finding a common ground has been difficult and we want to reduce the generic modules.' (7: 100)

The problem was not specific to programmes with smaller cohorts, nor was it isolated to specialist modules. Sharing was possible, but the lecturers identified that the students required more tutorial time (an ever-decreasing commodity), to make sense of this information and apply it to their practice. The assumption that the preceptor/mentor would be able to do this was found to be over-ambitious, as clinicians were struggling to meet the demands of supervision and assessment which left little time for explicit clinical teaching (Focus Groups 1 & 2). A recurring theme raised by the question: 'Are you currently working on any significant changes to your programme?' was a reduction in the amount of specialist and core modules and increasing cluster modules. Only one lecturer identified an increase in shared learning in their latest curriculum revision (14: 100/124). Two others identified that this was being managed through changing the pathway in which the programme was situated (22: 415; 10: 199).

A significant issue raised by the lecturers was the level at which programmes were set: at diploma (Level 2) or degree (Level 3). This was reported to have been the source of some tense but useful debate within the institutions. One option, embraced by eight institutions, was to offer the programme at either Level 2 or 3. One benefit of the modular system was that it was sufficiently flexible to tolerate these differences and meet the demands of both students and purchasers. For example, all the Paediatric Intensive Care curricula (ENB 415) in the sample (n = 8) were run at Level 2, as were the majority of Operating Department programmes (ENB 183/176) (n = 19); Accident and Emergency Nursing (ENB 199) (n = 26); Coronary Care Nursing (ENB 124) (n = 23) and Adult Intensive Care programmes (ENB 100) (n = 29) were more likely to be run at Level 3. But only 45% of the sample of ENB 100, ENB 124 and ENB 199 programmes were run at Level 3, with just over 50% of those also being offered at Level 2. Therefore, although less than half of the programmes returned to the researchers were run at Level 3, three lecturers indicated in the telephone interview that they were currently redesigning their programmes to be run as a Level 2/3 option; 19 were working on revisions to make the programmes Level 3 (across all specialties); and a further eight (five of whom were ITU lecturers) were currently developing a Level 3 specialist practitioner programme.

3.3.3 The purchasers

The next key factor identified by lecturers as an issue was the need to be responsive to programme purchasers. The lecturers felt concerned that the purchasers (consortia) were divorced from 'front-line clinical issues'. The clinicians and their managers had regular contact with the lecturers and were in many cases involved in curriculum development, but were not the people who directly contracted for educational provision (Focus Group 1, 14.1.1998 ; Focus Group 3, 31.7.1998). Therefore, they felt that significant changes in contracting were being made by people who were not directly involved in the programmes and this caused some concern.

3.3.4 The clinical environments

Lecturers identified that they served many different clinical environments: one reported having 22 link areas. Each environment had different priorities and agendas.

BEST COPY AVAILABLE

'The managers want specific outcomes for their units – but we cover a diverse range of units, so they have to write generic outcomes that are turned into a specialist focus in the locality. Some units have expanded roles, others don't and this has to be taken into account [when writing the outcomes]. We have to be terribly careful when we are preparing the students that they do not all expect to be doing something like suturing when that is not a nursing role in all the units.' (12: 199)

Such diversity required lecturers to write learning outcomes in an abstract style to accommodate the differences. Students and their preceptors were required to adapt these statements and apply them to their own practice setting using a learning contract, reflective journal or action plan. However, it was reported that some clinical managers were concerned that specific competencies could be missed using these methods. They were seeking more explicit statements determining what students would have to achieve. This was an issue for two ITU lecturers who were writing explicit competency/skills outcomes into their new practice assessment documentation.

Some lecturers had experienced difficulty in translating the assessment of practice into a medium that satisfied the institution of the academic merit of practice i.e. would make up 50% of the award (this issue was distinctly institution- rather than specialty-based). Many expressed pride in the tools they had developed with which to satisfy the institution that this was possible.

In response to the demand for flexible programmes, many students worked in their unit and were released to attend college for specific days of the week. This had resulted in a number of benefits for clinical managers. First was a reduction in staff turnover:

'Managers were reluctant to second their students [to a full-time programme] because they were losing them when they saw the grass was greener on the other side of the fence. Since we have changed the course to an 18-month part-time programme it has benefited the managers because they keep their staff for at least the period of the course.' (22: 100)

Modularisation also meant that students could be released from service at different times of the week rather than trusts experiencing a sudden loss of personnel to attend college on the same day (17: 415). However, this meant the students remained service-rostered throughout the programme and this reduced the opportunity for them to visit other units to gain a broader range of experience, a sensitive issue for one of the ENB 415 lecturers:

'Recruitment is a problem. We have had to run the programme with as few as four people because it is difficult to get people on secondment for the theory and practice. This is important because the day release students do not get enough paediatric experience in a DGH.' (23: 415)

Finally, lecturers stated that as the number of units they covered (i.e. from which students came to undertake the programme) increased, they had less chance to visit and maintain their clinical links. Some had overcome this by fostering lecturer-practitioner roles, with dedicated time spent in practice each week; others had decided to focus on one environment, but were concerned with the amount of support the others received.

Two lecturers outlined the real-world pressures of their role:

'I spend my whole life running round trying to do this and that for the students, the managers, the university. I have so little time for my research and I know that is as important and a priority. I struggle to get time in

BEST COPY AVAILABLE

practice and I have had to concentrate on one link unit and rely on audit and student evaluations to alert me to any problems. I feel terribly guilty about it but that is all I can do if I want to stay sane.'
(Focus Group 1: NT 100, 14.1.1998)

'Having to balance the demands and needs of the students with those expressed by the consortia and then having to defend those perspectives to the university in terms of the balance of theory and practice ... Managers have an unrealistic expectation that the students will exit the programme as experts but you have to find a way to cope with that ... It just doesn't stop!' (26: 415)

Despite the challenges, many lecturers were inspired and energised by the opportunities created by entering higher education. Many expressed pride in the way issues had been resolved, the way they had brought together disparate groups of clinical managers and worked effectively with them in curriculum planning and programme management. Many were pleased with the way they had overcome initial difficulties in convincing the universities of the academic merit of practice.

Although lecturers felt 'pulled in all directions' and this resulted in them becoming cynical about the systems that generated paperwork, the majority remained passionate about practice. This enabled them to overcome exhaustion and negativity, draw upon the enthusiasm of their colleagues and students and resolve to keep up their momentum. Scholes and Chellel (1999) have described a similar account of lecturers' experiences.

Key points

- Higher education has been the subject of much recent change. 'Massification', accessibility, public accountability, and transparency of the universities' educational processes and management systems have resulted in significant change to the provision and delivery of programmes of education.
- One outcome has been a desire to clarify the competencies and skills of a graduate. Furthermore, there is growing pressure to create greater national comparability and coherence of programmes through the creation of threshold standards and benchmarking activities.
- Modularisation and semesterisation have been introduced to increase flexibility and accessibility to and across programmes. Although there have been a number of benefits, this has also created significant challenges to curriculum planners, lecturers and students.
- Alongside integration into the universities, colleges of nursing have had to adapt to the challenges created by the purchaser–provider split resulting from the NHS reforms. Although the free-market philosophy has been reduced in the NHS, this has not been extended to the provision of nurse education in England.
- Critical care programmes have had to change in response to a number of factors: structural changes affecting higher education; the increase in part-time provision; qualification inflation (as more students enter the post-registration programmes with a diploma); shared learning; the distribution of available funding and study time; and how the programmes fit with the overall career and professional progression of the nurse.
- As programmes have expanded to include a broader range of subjects (and responded to the structural changes created by higher education initiatives), the amount of dedicated time for client-centred care topics has been reduced. This has given rise to an increasing concern among clinical managers that some students may not be acquiring core competencies for clinical practice on an ENB clinical programme.

4.1 Introduction

This chapter explores the impact of various policy initiatives on higher education provision. Since integration into the English higher education sector was completed in 1995, these factors have direct bearing upon the provision and delivery of pre- and post-registration programmes of nursing education (both clinically- and academically-based). Therefore, it is important that these issues are addressed in some detail. The telephone interview with critical care lecturers identified that many of the difficulties they encountered directly hinged on policy decisions affecting their own educational institution. First, national policy affecting higher education is examined before a review of how this has affected the work of the professional and statutory bodies, and the provision of nurse education (the purchaser–provider split), is undertaken. The impact of these factors on the nursing curriculum is then examined. Finally, factors that have directly influenced the provision of critical care programmes are explored. Figure 4.1 maps out the key factors and policy directives that will be discussed.

Figure 4.1: Key issues for discussion in the review

4.2 Higher education

The Dearing Report (NCIHE, 1997) heralded the most radical and far-reaching changes for higher education since Robbins in 1963 (Watson and Taylor, 1998). The focus of the report can be conceptualised into the following categories:

- the educational institution's geographical focus be it regional, national, international (encouragement to link more explicitly with local employers, a point taken up in the Government's response to the recommendations)
- the institution's size (increasing student numbers particularly from disadvantaged groups)
- the nature of the teaching and learning provided by the institution (balance between breadth and depth; developing key skills of 'graduateness', work placements/experience for students)
- the approach the institution takes to students (openness and choice)
- quality issues, standards and qualification frameworks
- the institution's research profile (which should strongly underpin higher-level teaching)

- governance and management of the institution including institutional autonomy, academic freedom, open and responsive governance as guiding principles (NCIHE, 1997).

Perhaps the most influential issue, however, has been the 'massification' of higher education. Mass higher education according to Trow's (1973) definition is when participation of 15-40% of each age cohort is achieved, although this does not take account of lifelong learning, the large numbers of mature students in higher education in the UK, or the number of students who successfully achieve their awards. Nevertheless, according to Trow's definition, massification was achieved in the early 1990s (Watson, 1999) and remains high on the political agenda (DfEE 1998a). Between 1983 and 1994, undergraduate numbers increased by 70%, with above average increases in the professional and vocational areas (Watson and Taylor, 1998). In large part this was due to the integration of nursing and midwifery, as well as other professions allied to medicine (PAMs), into the higher education sector (Watson and Taylor, 1998). Despite this, the Government set a target to increase the number of students enrolled in further and higher education by a further 500,000 by 2002, and additional funds of £165 million were identified to help the sector counter the under-funding it had experienced over the past decade (DfEE, 1998a). However, although welcome, this sum fell far short of Dearing's identified funding gap for 1998/9 of £350 million (Coopers and Lybrand, 1997). Although student fees were hoped to assist the funding crisis, the impact of further 'massification' of higher education and continuing lack of resources demanded a radical review of programme delivery.

The Government responded to the Dearing Report in two publications: *Higher Education in the 21st Century* (DfEE, 1998b), and *The Learning Age* (DfEE, 1998a). The following issues caught the media and public's attention:

- student tuition fees of £1,000 to be introduced with reductions for students from low income families
- additional funding to institutions recruiting students from disadvantaged backgrounds
- funding to follow students and to be based on a three-year rolling programme
- lecturer training for staff to be accredited by the Institute for Learning and Teaching Higher Education (QSC, 1998).

Another key influence on the way in which the higher education system operated was the drive to make institutions more transparent and accountable to stakeholders – fee-paying students, industrial sponsors, and Government funding bodies (Lyons and Bement, 1996; DfEE, 1998a; 1998b; QAA, 1998). This was to be achieved through the audit of higher education institutions and the publication of audit results on the Internet. Audit is undertaken on a subject-review basis as well as through continuation audit (which is about institutional 'fitness' to provide graduate programmes). One outcome of the need for transparency and accountability was the identification of what could be expected of graduates irrespective of the discipline in which their degree was based, i.e. notions of 'graduateness' (HEQC, 1997).

4.2.1 Graduateness

When one examines the features of graduateness defined by key stakeholders the different assumptions and priorities stated are illuminating (Table 4.1).

Defined by educational institutions

Knowledge and application

- grounding in the discipline
- range of practical experience
- to be able to apply up to date knowledge and understanding to solve problems
- knowledge based on current research
- interpreting diverse phenomena
- making comparative judgements
- probing the nature of knowledge for practice
- making judgements which take account of ethical and philosophical issues bound by their context
- supporting that judgement with logical and coherent argument with evidence from relevant and accurate citations of reference material

Generic skills

- independent active learner
- written oral and presentational skills
- competence in information technology
- time management
- teamwork

Personal skills and awareness

- self reliance
- resilience
- adaptability
- readiness and preparedness for change

Defined by students

- employability
- personal development (N.B. mature students)
- learning to learn
- independence
- ethical awareness

Defined by employers

- flexibility
- adaptability
- communication skills (N.B. listening and speaking in a variety of contexts)
- teamwork
- interact with a wide range of internal and external clients
- networking
- responsive to change
- creativity (low priority)
- initiates change (low priority)

Table 4.1: Features of graduateness defined by institutions; students and employers (HEQC, 1997)

The Dearing Committee recommended a number of factors be integral to all degree programmes:

- communications
- numeracy
- use of information technology
- learning how to learn
- cognitive skills such as understanding methodologies or ability in critical analysis
- subject-specific skills should be integral to all graduate programmes.

The Government took up these recommendations and distilled them into key employability skills needed by all young people and adults, to include the ability to:

- work with other people
- communicate effectively including writing skills
- work with numbers.

- use information technology
- develop learning skills
- problem-solve (DfEE, 1998a).

Therefore, there appears to be little that differentiates the graduate (when distilled into Dearing's core generic competencies) from other learners (apart from cognitive skills), which then turns full circle back to identify graduate standards and levels of performance. To review why this has become such an issue, it is necessary to revisit the CAT scheme.

4.2.2 Credit Accumulation and Transfer Scheme

Since 1989 the dominant CAT model has been the one prescribed by the CNAA of 120 credits at Level 1 (higher certificate), 120 credits at Level 2 (diploma), and 120 credits at Level 3 (degree) which equated to the first, second and third year of study. SCOTCAT offered a similar approach but included a fourth level which equated to an Honours degree award (HEQC, 1996). Each year built upon the notional learning hours associated with a 30-week academic year (1,200 notional learning hours), broken into 10 hours per unit of credit (SEEC, 1996). However, increasingly there has been a shift away from the notional hours that make up one year of study to reflect the increase in part-time students who study over longer periods (Warner, 1996; McDowell, 1996).

Although credits had been used in higher education for 10 years (25 years for the Open University), audits conducted by the South East Education Consortia (October 1994-95) identified increasing diversity in credit definition, level descriptors, regulations for credit use, and the way in which academic credit was articulated in relation to other awards across a range of universities (SEEC, 1996). Such differences were also found by James and Redfern (1995), who examined the notion of levels and credits in nursing degrees leading to the Board's Higher Award; these findings were supported by Gerrish et al. (1997), who identified diversity across pre-registration and post-registration provision. Therefore, factors that created these differences could not be attributed to the different disciplines approach to credit rating. Institutional autonomy, the demise of the CNAA and increasing competition throughout the higher educational sector were identified as the causes of increasing diversity (SEEC, 1996).

4.2.3 Quality and standards

In response to the recommendations on quality and standards contained in the Dearing Report, the Quality Assurance Agency (QAA) published proposals to ensure all the purposes of quality assurance were met to:

- assist educational institutions in enhancing the quality of their provision
- promote public confidence in higher education and the standard of awards
- generate reliable public information (to all stakeholder groups)
- ensure clarity and transparency about the purpose of programmes and the meaning of awards
- provide a measure of accountability for the resources provided by the public purse and individuals who fund institutions (QSC, 1998).

To achieve these outcomes the QAA proposed a model with six main elements:

- developing a qualifications framework in the UK
- developing a template for programme specification

BEST COPY AVAILABLE

- developing benchmark information on subject threshold standards
- defining the subject areas for benchmarking work
- developing the codes of practice for institutional review
- strengthening the external examiner system and developing the role of the registered external examiner (QSC, 1998:2).

Key elements of the qualification framework included:

- a definition of level and credit
- a number of levels and types of awards
- generic level descriptors and generic awards definitions
- guidance on appropriate award nomenclature (QSC, 1998).

Such proposals have met with a mixed response. One view was that standardisation of qualifications was essential for an effective mass system of higher education, but that threshold standards for each academic discipline was over-ambitious (Dill, 1998), and the timescale for completion of the work reckless (Bell, 1998). Many were concerned with the details and level of prescription outlined by the QAA which *'conjured up a bureaucratic nightmare'* (Massaro, 1998: 6) and saw the QAA as the CNAA reborn across the whole university sector (Dill, 1998; Bell, 1998; Massaro, 1998). Conversely, other commentators saw the QAA's proposals which shifted the attention from quality (especially the student experience), to the confirmation of standards as: *'capturing many of the developmental themes in recent history of UK higher education'* (Watson and Taylor, 1998: 76). The same authors suggested that the move away from 'league table' institutional competition (derived from the quality assessment) to collaboration within the sector (to establish threshold output standards) captured the Dearing Committee's vision for a unified but diverse higher education sector.

4.2.4 Modularisation: the debate

Modularisation is one of the key factors influencing programme design and delivery; its main aim is comparability (HEQC, 1996). Reasons for modularisation, suggested by its advocates, are listed in Table 4.2.

Modules in England are defined in terms of the volume of learning and notional study time to attain a required standard (HEQC, 1996). Walker (1996) argues that modules do have a conceptual framework including:

- the integrity of units and their planned aggregation into programmes
- choice, combination and flexibility
- responsiveness
- credit accumulation.

Modules are about creating the opportunity for learners to choose what, and when, they study (Jackson, 1996a). This enables them to select modules which break across traditional disciplinary boundaries (Robertson, 1996), and units of learning must therefore be organised and standardised so they can build up to a prescribed amount equating to an academic award (McDowell, 1996: 96). Consequently, modularity and CATs have been inextricably linked (Gerrish et al., 1997) and demonstrate the shift from top down (CNAA-prescribed) to bottom-up (lecturers creating modules with associated credits) approaches to credit rating (Armstrong, 1995).

Economic

Modularisation enables the effective and efficient use of resources. It enables increased curriculum choice, and flexibility. It makes programmes more marketable and attractive (HEQC, 1996). [Although Warner (1996) identified that this was not the case].

Social

Modularisation allows for increased access to higher education by under-represented people in the community because modules can accommodate learners' individual circumstances. Modules allow people to move in and out of higher education throughout their lives (HEQC, 1996).

Political

CATs and modules facilitate the attainment of policy objectives for accessible, responsive, high participative higher education sector (HEQC, 1996).

Educational

Modules can:

- facilitate interdisciplinary and multidisciplinary programmes
- enable curriculum designers to respond quickly to national initiatives and market needs
- improve the learning style and mode of study
- make the education process more transparent and accountable (HEQC, 1996).

Progressive assessment (i.e. continuous assessment or assessment of each module), is more oriented to practice based learning (Watson et al., 1989).

Economic

Significant economies can be made through common teaching (Watson et al., 1989).

Table 4.2: Reasons for modularisation

Modularisation was never conceived as curriculum development, so the central issues of curriculum development which it raised were neither rehearsed nor resourced (Kushner, 1996). Indeed, in the rush to modularise, many were left segmenting their existing curricula into component parts, increasing the core compulsory modules and thus reducing student choice, flexibility, and mobility (Robertson, 1996). This phenomenon was described by Watson (1996) as *'phantom modularity'*.

Although the majority of academics believe that the introduction of modularity is driven by economic, social and market forces (Jackson, 1996b) and that it has created widespread resentment and reduced the quality of education provision (Howard, 1995; Gregg, 1996; Trowler, 1996; Warner, 1996; Kushner, 1996), they also believe that it is here to stay (Warner, 1996). Some argue that the problems thrown up by modularisation existed prior to its implementation across higher education (Jackson, 1996b; Gregg, 1996); others suggest that semesterisation, not modularisation, has created the problems (HEQC, 1996; Warner, 1996). Walker (1996) suggests that the problems have arisen due to rushed implementation and inexperience of modularisation. Such issues have been compounded by the range of approaches to modularisation (HEQC, 1996; Robertson, 1996) and the rapid growth in the student population and diversity during a period of reduced resources (HEQC, 1996; Gregg, 1996; Trowler, 1996). Furthermore, the HEQC (1996) suggests that the absence of systematic research into aspects of modularity has hindered understanding of its strengths and weaknesses. Time is needed to allow the system to embed, experience to build and students, employers and academics to adapt (Walker, 1996).

Why should modularity have created such diverse responses? There is a definite schism in the literature between ideologists who espouse the merits of modularisation from a

philosophical or political stance (e.g. Watson et al., 1989; HEQC, 1994); Allen and Layer, 1995); those who gain promotion through the modularisation process by building up a specialist subject area which they control; those who enjoy administrative work (Trowler, 1996); and those, mainly lecturers, who must respond to the demands created by modularisation (Trowler 1996; Gregg, 1996) and deal with students' discontent at being caught in the transition (Aldous, 1996). Factors creating discontent are listed in Table 4.3.

Workload

- Academic workload and administration increases (Watson et al., 1989; Clarke and Aldous, 1996) pushing lecturers away from teaching and into administration (Trowler, 1996)
- Supposed to be about reducing duplication but the converse is true (Trowler, 1996)
- The process is challenging and stressful (Margham, 1996) and takes 3-5 years to resolve (Gregg, 1996). Academics perceive relatively few benefits from the process especially when local politics increase resentment and suspicion (Gregg, 1996).

Flexibility and choice not a reality

- There is a lack of coherence and progression from the 'pick and mix' choice of modules (Watson et al., 1989)
- Early years are marked by experimentation and learning from mistakes (HEQC, 1996)
- Students can choose modules for tactical reasons (e.g. to gain higher marks for assignments) rather to enable the student to realise their potential (Watson et al., 1989; McDowell, 1996)
- Modularisation is seen as unsuitable for some subjects e.g. law (Gregg, 1996; Randal, 1995) and medicine (Jackson, 1996c), and more suited to hard science subjects and mathematics (Warner, 1996). It militates against interdisciplinarity (Warner, 1996).
- The system in reality is not as flexible as suggested especially where education is provided on split sites (Watson et al., 1989).

Resources

- Modularisation is not a cheap option as gains made on mass provision are set against increased administration and paperwork (Warner, 1996; Watson et al., 1989)
- It increases pressure on library resources; studio and laboratory time (Gregg, 1996; Bird and Roberts, 1998).

Public and employer perception

- Although the public is enthusiastic, modularisation causes confusion to employers, schools, colleges and careers advisers (Watson et al., 1989). Industrialists don't like it (Warner, 1996).

Assessment

- Assessment now driving teaching and learning (HEQC 1996; Gregg, 1996; Jackson, 1996d; Trowler, 1996; McDowell, 1996; Warner, 1996)
- Students experience increased workload. Overloading assessment encourages surface learning and has reduced the amount of formative assessment (McDowell, 1996; Warner, 1996).

Table 4.3: Modularisation: factors of concern for academics

Gregg (1996) summarised that British academics cared deeply about their students and the factors cited in Table 4.3 have distracted them from what they considered their main purpose: to facilitate learning. They lamented the loss of personal contact with students and diminishing opportunities to provide constructive, formative feedback to encourage intellectual development (Gregg, 1996). However, some positive outcomes have been identified by lecturers and these are listed in Table 4.4.

Curriculum review

- Modularisation has encouraged institutions to debate issues surrounding comparability of standards across portfolio of awards (HEQC, 1996)
- Institutions are more explicit about the standards of individual modules and aggregation of programmes but are yet to develop a view as to what graduates should know and be able to do on completion of a modular degree programme (HEQC, 1996)
- Modularity has moved the debate from teaching to learning (Warner, 1996; Robertson, 1996).

Impact on staff

- Modularisation has engendered a greater sense of ownership and control by academics of their input to programmes (HEQC, 1996).

Assessment

- Modularisation has increased the variety of assessment strategies and encouraged the development of more explicit assessment criteria. Students know what is coming and can plan accordingly, although they can focus all learning on assessment (HEQC, 1996).

Student benefits

- Greatly benefits part-time students (Warner, 1996)
- The student drop-out rate has been reduced (Warner, 1996).

Table 4.4: Factors identified as positive outcomes of modularity

4.3 Factors affecting nurse education

Having addressed the factors influencing the provision of higher education, the review shifts to the issues influencing programme design and delivery in health care. First, macro relationships are explored including the impact of the quasi purchaser–provider split and its impact on educational and clinical institutions. The relationship between the professional and statutory bodies and the higher education sector is then described; the issues are then synthesised and their impact on the critical care programmes examined.

4.3.1 The impact of the 'free market' philosophy in nurse education

The purchaser–provider split created by the NHS reforms (DoH, 1989), and the rise of general management principles ushered in by the Griffiths Management Inquiry (DHSS, 1983), significantly influenced the generation of new approaches to professional practice (Parkin, 1995). Working Paper 10 reviewed the arrangements for nurse education in the light of the NHS reforms (Francis and Humphreys, 1998). Key changes were aimed at giving employers greater control and increasing competition. Although the Government has since reduced the emphasis on free-market philosophy in the NHS (DoH, 1997a), this has not been extended to the quasi purchaser–provider split in English nurse education (Francis and Humphreys, 1998).

Currently nurse education is commissioned by consortia in each of the eight regional offices of the NHS Executive. Representatives from local health care employers form the consortia; they have responsibility for workforce planning (calculated on a five-year cycle) and purchasing education from the higher education sector. The NHS Executive maintains an overview of workforce planning to ensure an adequate supply of nurses nationally (Francis and Humphreys, 1998). Providers of nurse education are in no doubt that the publicised results of the QAA subject reviews as well as the continuation audit, will fundamentally influence where commissions for nurse education will be placed in the future.

Changes in educational preparation including Project 2000 (UKCC, 1986), PREP (UKCC, 1993), and the Board's Framework for Continuing Professional Education and Higher Award (ENB, 1991) aimed to create flexible modular diploma and degree programmes for clinical practice. As highlighted above, the modular system enables educationalists to swiftly update sections of the curriculum without having to revise the whole (Watson et al., 1989); this suited the shift of employer control over nurse education. However, this system has created some tension, especially where diverse requests from purchasers increase the number of modules created but these are not viable because of a shortfall in students. Furthermore, the workload created by constantly changing, updating and expanding created significant pressures for teaching staff. A recent position paper identified that:

> *'The power vested in purchasers is such that it may disturb the balance which exists between responsible management, accountability for quality and the need to fund education which meets NHS requirements. It is important that working principles are established to safeguard and protect academic freedom and the capacity to develop radical and different education programmes.'* (CHD, 1997: 10)

Although employers could influence programme provision at a local (and perhaps modular) level, recent increases in their power may mean that the relationship between the educational institutions and the consortia shifts to one that more explicitly involves the institution (especially when the consortia commissioning can be influenced by published QAA subject reviews and the continuation audit). Whether the introduction of national frameworks, benchmarking and threshold standards simplifies or exacerbates the purchaser provider relationship is yet to be seen; however, this model aptly demonstrates one advocated in *The Learning Age*, of local responsiveness and interaction with local employers (DfEE, 1998a).

4.3.2 The relationship of professional and statutory bodies with the higher education sector

The statutory function of the Board in accordance with the Nurses Midwives and Health Visitors Act 1997 lies in the approval of higher education institutions and programmes. A revised Quality Assurance Framework and Standards for the approval of programmes was implemented in October 1998. The Board explicitly stated that it was fully committed to working collaboratively with all the stakeholders (QAA, NHS Executive and Education Consortia) to ensure the quality of nurse education (ENB, 1998a). Over a two-year period (1998-2000), the annual monitoring review of the Board was to be undertaken in collaboration with the QAA subject review teams.

The QAA came into being in April 1997, taking over from the Higher Education Quality Council which had quality assessment committees managing the assessment of the work it funded by subject. These committees also conducted institutional audit to gauge quality assurance processes. These activities were criticised across the sector as being expensive, intrusive and methodologically weak (Watson and Taylor, 1998). Although it had been hoped that the QAA would modify this 'twin track' approach, it continues to conduct subject reviews and institutional audit, known as the continuation audit (Watson, 1999). This has resulted in some tension between the QAA and professional and accrediting bodies (Watson and Taylor, 1998). It has also led to comments from educational institutions about the duplication of effort in providing material to inform the information needs of the QAA and professional and statutory bodies (P/SBs) (CHD, 1997). In an effort to reduce duplication, the Board and the QAA drew up a memorandum of agreement in relation to the arrangements for collaboration regarding subject review (ENB, 1998b). Despite these endeavours *'some residual tensions remain arising*

BEST COPY AVAILABLE

from the multiple levels of accountability within institutions, principally audit and assessment' (Watson, 1999: 2).

4.4 Critical care programmes

Four key factors have influenced the provision of critical care programmes:

- the impact of structural changes on programme design and delivery
- the changing profile of the students recruited to the programmes
- the expectation of students' competencies and skills after they have completed the programme
- how the programme fits into the overall career and professional progression of the practitioner.

4.4.1 The impact of structural changes to the programme

The shift in higher education towards modularised and part-time programmes meant that critical care programmes fundamentally changed in terms of design and delivery. In 1989, the Board introduced a new limit to the timespan of an ENB-certificated programme to 26 weeks, inclusive of two weeks' holidays. At the same time it encouraged shared learning and introduced the concept of core generic modules (ENB, 1989). The aim was to encourage the exploration of issues among students who were in similar fields of practice.

Although shared learning and core generic modules helped to maintain programmes that attracted smaller numbers e.g. theatre programmes (Lindsay, 1990), this proved unpopular for some, who believed the core programmes detracted from the specialty and failed to recognise the uniqueness and diversity of practice (Crouch and Jones, 1997).

Although anecdotal evidence abounds that this was a shared perception among other specialist practitioners, it has been most vociferously articulated from the A&E lobby who feel that their work has more in common with community/primary care practice than critical care *per se*. This has led to proposals for a Faculty of Emergency Nursing to:

- develop core learning outcomes and core content for accident and emergency modules (enabling existing programmes/modules to be validated within that framework)
- develop a career pathway in the specialty including association, membership and fellowship of the faculty dependent upon clinical experience and expertise
- validate learning environments through audit as fit areas for A&E programmes
- identify priorities for research in A&E nursing and disseminate research findings through to the membership.

The faculty could also be involved, through an advisory group, in appointments to senior A&E posts, maintaining a tight hold on the quality of service as well as the learning environment (Crouch and Jones, 1997; Crouch, 1998). The impact of the faculty would be formally and independently evaluated.

4.4.2 The changing profile of the students on Board programmes

Further changes came to the clinical programmes, in part because of the recruitment and retention problem in critical care. The Department of Health (DoH, 1996) identified the stressful and demanding nature of the work and its effect on staff turnover as contributing to this problem.

The shortage was such that clinical managers had to recruit D-grade staff attracted to an area by the promise of a critical care programme in the future (Ashworth, 1996). To fit the practitioner for the demands of their role, before they undertook the programme, in-house training initiatives were started (Durston and Rance, 1995). These initiatives enabled practitioners to gain competence with the technological demands of the environment, as they were unable to focus on the patient until they felt safe with this (Fitter, 1987; Ashworth, 1990; Scholes and Smith, 1997; Scholes and Moore, 1997). This marked a significant change in terms of the range of experience among students on critical care programmes; the most striking feature was a shift away from programmes serving as preparation for entry into specialist nursing, to programmes which enhanced the knowledge and skills of practitioners already working in those areas (Kite, 1998).

The DoH (1996b) identified that an adequate number of staff should be available to access programmes when they were able to attend them. To accommodate these needs, the Board's clinical programmes dynamically altered from the 26-week full-time format (six-month secondment), to part-time critical care pathways of the higher award or other post-registration modular diplomas or degrees. Part of the practice placement was to be undertaken in the student's own unit (Ellis, 1994).

Programme content altered significantly due to the expansion of subjects included in the programmes as a result of the 10 Key Characteristics advocated by the Framework for Continuing Professional Education (ENB, 1991), the integration of critical care programmes to modular degrees, and the diversity of subject domains that receive attention in nursing programmes (Lafferty, 1997). These factors have meant that programmes now address more than client centred-care. In addition, institution requirements for the proportion of self-directed study relative to lecturer contact time, has significantly reduced the 'taught time' available on these programmes. Thus, increased content has been matched by a reduction in teacher-led study and tutorials (Trowler, 1996). Furthermore, the Board's recommendation for increasing the amount of shared learning within such programmes has shifted the amount of time available to focus on specialty topics (ENB, 1989). With less time available to address client-centred topics, this may be viewed contributing to the reduction in the number of directly transferable clinical competencies students' acquire on the programmes (Crunden, 1998).

The changing prior experiential and academic profile of programme participants has significantly affected programme design. As more practitioners entered the programme with a diploma, there was a demand to raise its academic level. Another critical factor has been the increase in the number of students who had significantly more than one year's experience in the specialty, but were required to gain the award to retain their senior clinical positions (Bradshaw, Burtun and Murray, 1994). This resulted in programmes having to accommodate students of mixed abilities and clinical experience attending programmes on a part-time basis (Ellis, 1994).

Theoretically, part-time students have more time to translate critical care concepts back to their specialty facilitated by their preceptors/mentors, and because they were self-directing, they could identify their own learning needs and pace their learning to match their individual learning styles (Watson et al., 1989). However, as already highlighted, some clinical managers were expressing disquiet over the range of core competencies they could expect of practitioners who had undertaken the programme within this framework (Crunden, 1998). Indeed there is a growing body of evidence which demonstrates that practitioners frequently do not perform to an adequate level (While, 1994). The response to such shortfalls is a demand for competence. Amidst the calls for greater diversity and choice are those who wish to pin down the performance of practitioners to specifics. Although the principles of lifelong learning are recognised and valued as inherent in professional practice (Ashworth, 1997), the generic learning outcomes

BEST COPY AVAILABLE

promulgated by the philosophy have the potential to raise inconsistencies with the clinical managers' desire for core competencies (Crunden, 1998).

4.4.3 Defining competence

The term 'competence' can be problematic (Milligan, 1998) although the Board insists that it is central to the assessment of nursing students (ENB, 1996b). The key issue is in the interpretation of competence. Viewing competence through a behaviourist lens may emphasise outcome and say little about the process to achieve competence (Eraut, 1994; Milligan, 1998). Other definitions, usually linked to the professions, identify clinicians as capable of practising safely at a stage in their professional development (Benner, 1984) and imply that they are *'tolerably good but less than expert'* (Eraut, 1994: 160). Definitions of professional competence invariably suggest the successful integration of theory and practice (Jarvis, 1985; Schön, 1987; Eraut, 1994) that demonstrates aspects of a job that a client or clinical manager might expect from the practitioner (Eraut, 1994). Herein lies the problem. Balancing the demand for specific competencies as a result of a period of study (i.e. product-specific outcomes made transparent to the purchaser of the educational package) with the notion of holistic competence, which implies the development of the individual (consistent with lifelong learning philosophy and professional competence), can create tension as the values inherent to either approach are inconsistent (Otter, 1994; Milligan, 1998).

Although developing a list of competencies may seem appealing, and such approaches have been fostered in South Africa (Scribante et al., 1996); Australia (Confederation of Australian Critical Care Nurses Inc., 1996) and Canada (Fitch et al., 1996), defining a list of core competencies can be problematic especially when the nature of the work is rapidly changing (Eraut, 1994; Norman, 1996, cited by Rushforth and Ireland, 1997). Indeed, this issue is made clear when examining the competencies generated in each one of the aforementioned studies. Although the methodology for each set was different, so too, were the number and type of competencies each defined. For example, the Canadian study identified 400 specific competencies considered essential for the novice in critical care nursing (Fitch et al., 1996), while the Australian study identified 20 generic competency standards, be they supplemented with a number of elements and performance criteria. This gives some indication of the cultural specificity of competencies but also suggests the temporal nature of their lifespan. Despite these difficulties, Crunden (1998) and Milligan (1998) argue that there are some core skills which are fundamental to practice and these should be achieved as the outcome of a period of study. What differentiates their approach is their desire for the student to acquire transferable skills concurrently so that their core skills/competencies can be updated and refined.

One approach to the definition and assessment of specific competence has been through the National Vocational Qualification (NVQ) network, the main focus of which is to facilitate the development of work-related skills (Milligan, 1998). Despite pressure for the introduction of NVQs at Levels 4 and 5 into higher education, this was rejected by the Government (DfEE, 1998a) in favour of generic, transferable outcomes. Thus the emphasis on the ability to analyse situations critically in ever-changing contexts has been given greater priority than an ability to perform a specific set of activities promulgated by the advocates of the NVQ system (Milligan, 1998). However, while nurse education is driven by employers (Francis and Humphreys, 1998), and they still require core competencies (Crunden, 1998), programmes may have to incorporate learning and assessment strategies which accommodate both demands. The means by which such diverse approaches can be bridged will require a great deal of imagination and creativity (Lewis, 1998). Pragmatists suggest that the two approaches are not incompatible (Watson and Taylor, 1998), however, the impact of combining them on student learning and the acquisition of professional competence will require robust scrutiny.

4.4.4 The critical care programme and higher-level practice

Critical care programmes have been caught in the debate over specialist and advanced practice; many have attempted to link these levels with academic levels of study e.g. advanced practice equating to a minimum of Masters-level preparation (Ball, 1997) and specialist practice linked to a degree in critical care nursing. However, the United Kingdom Central Council for Nursing, Midwifery and Health Visiting has avoided defining advanced practice (UKCC, 1997a) and its recent discussion paper on 'higher-level' practice (UKCC, 1998) made no reference to academic credit for the achievement of higher-level practice (ENB, 1999). Many proactive educationalists (who developed programmes to fit the practitioner for either specialist or advanced roles) have therefore put their plans on hold.

Having outlined from the educational perspective the significant issues that have influenced the provision and delivery of critical care courses, the review now addresses the policy issues that have influenced practice in the critical care setting.

Key points

- Critical care has undergone many changes during the 1990s, in the roles of health care professionals, service configuration and public expectations. Review of education for critical care nurses must be discussed in the context of these changes. The literature review serves to highlight issues of concern to critical care nursing in the UK.
- A number of policy initiatives have led to the development of new and expanding roles in health care practice. This has resulted in an increase in the number of shared roles and an increase in interprofessional working.
- A key feature has been the increase in acute care in the community with a concomitant increase in the scope of critical care throughout the hospital setting. This has led to the concept of *'critical care without walls'*.
- Many of the policy initiatives and recommendations in critical care have focused on re-configuring services to make optimum use of resources and to ensure that patient interventions are timely and appropriate.
- Recent innovations in specialist care and practitioner roles in critical care nursing are addressed individually.

5.1 Introduction

This chapter reviews some of the literature relating to nursing practice and policy in critical care. In order to set this literature in context, a brief overview is provided of changes within the wider nursing profession; special emphasis is placed on the implications of *The Scope of Professional Practice* (UKCC, 1992a) as this triggered the development of a large number of innovative nursing roles, particularly in the critical care sector. The review then examines the controversies surrounding the definition and provision of critical care, to provide a backdrop for the critical care programmes of education. Nursing roles in A&E; coronary care; adult intensive care; operating theatres and paediatric intensive care are examined, distilling the idiosyncratic and common themes about role development emerging across the specialty of critical care.

5.2 The nature of UK nursing practice in the 1990s

This section examines some of the key changes affecting the nursing profession. The topics outlined include:

- the expanding role of the nurse and innovative practice
- multiprofessional issues
- clinical supervision
- the specialist practitioner.

5.2.1 The expanding role of the nurse

Emphasis on the increasing accountability of the individual nurse was highlighted in changes to pre-registration education (UKCC, 1986), with assessment of need emphasised as a key role of the nurse of the future. Subsequent developments within the profession, specifically

the new version of *The Code of Professional Conduct* (UKCC, 1992b) and *The Scope of Professional Practice* (UKCC, 1992a), stated firmly the individual nurse's accountability, not just for patient care, but also for recognising personal limitations in knowledge and skill. The future development of practice to meet patient needs was also emphasised (UKCC, 1992a). However, concurrent changes in medical practice (NHSME, 1991) meant that the potential for role expansion to be led by the medical agenda (reduction in junior doctors' hours), rather than the nursing agenda (responding to patient need) became an issue. Politicians and health economists seized upon the potential of nurses, midwives and health visitors to carry out duties normally undertaken by junior doctors and thereby make considerable financial savings. Richardson and Maynard (1995) suggested nurses could undertake 30-70% of traditional medical tasks, saving the NHS in the region of £300 million a year.

This possibility was emphasised by the availability of central funds to explore new roles in both nursing and the professions allied to medicine (PAMs). However, the combination of changes in medical and nursing practice and the emphasis on shared roles was viewed as an opportunity for the removal of clinical grading in favour of a competency-based system (Koefman and Woods, 1995). Furthermore, the sharing, rather than transferring of roles from doctor to nurse was found to be the preferred option in a survey of nurses and junior doctors (n = 430) undertaken for the DoH (Greenhalgh and Company, 1994).

The new emphasis on expanded practice rather than extended roles (for which certification, countersigned by a medical practitioner, was required) gave nurses the freedom to develop their practice into areas previously undertaken by doctors, including:

- the insertion of hormone replacement implants in the A&E department (Gane, 1994)
- nurse-led clerking (taking of patient history) (Koefman and Woods, 1995)
- in new areas of practice, e.g. the use of complementary therapies and the development of the nurse-patient relationship (Tolley, 1994).

Caution was, however, expressed in relation to the legal aspects of expanded nursing practice. Differences in the codes of practice for medicine and nursing could lead to confusion over accountability when nurses took on roles previously undertaken by doctors (Dowling et al., 1996; Bowler and Mallik, 1998). This led to many new roles (particularly in critical care) being governed by protocols (Scholes, 1998). Although they initially liberated nurses to expand their practice, with increasing experience practitioners found the protocols inhibited the fluidity of their interactions and their decision-making ability (Scholes, 1998). Furthermore, in a small-scale study of coronary care nurses, Carver (1998) suggested that the skills training accompanying role expansion was little different from that leading to certification of an extended role.

The Scope of Professional Practice (UKCC, 1992a) left the handling of expanding roles to local interpretation, raising important questions about employing authorities' vicarious liability, the position of the UKCC and civil law, and liability and indemnity for individual practitioners (Dimond, 1995). The new model of professional regulation (UKCC, 1986) has given rise to disquiet among the multiprofessional team and a desire for greater clarity (Darley and Rumsey, 1996). The DoH sought to clarify the use of group protocols to enable nurses to exercise clinical judgement in the administration of certain drugs. The Crown Report provided clear guidelines for the development of protocols for the supply and administration of named drugs to *'groups of patients who may not be individually identified before presentation for treatment'* (DoH, 1998: 6). Thus nurses were able to assess patients and decide whether a certain drug was appropriate, without waiting for a doctor's authorisation (e.g. the administration of thrombolytic treatments to patients presenting with acute myocardial infarction).

Media attention over nurses assuming some new tasks suggested public disquiet and the need for clear assurance over the ways in which nursing, midwifery and health visiting was developing. Expanding roles had started to break down the traditional boundaries of the health care professions and raised questions about multiprofessional working within the NHS (Hunt and Wainwright, 1994; Willis, 1998).

5.2.2 Multiprofessional issues

Additional factors which had promoted the development of multiprofessional working included:

- a move to reduce the number of health care professionals in contact with a patient (the stimulus for many innovative nursing roles)
- increased continuity of care for patients through systems such as integrated patient care and patient-focused care (Garside, 1993)
- the changing but expanding role of health care and welfare provision.

One initiative, with a clear interprofessional agenda was the focus on clinical governance. This focused on trusts' accountability for the quality of patient care and clinical standards, rather than solely for meeting budget limits. The elements of clinical governance (e.g. clinical audit, evidence-based practice, risk management, incident reporting, patient feedback) provided a firm foundation for nurses to work collaboratively with other professionals.

The development of collegiate relationships between the professions and greater recognition of shared knowledge led to an increasing interest in multiprofessional education. Modularisation was seen as a key to enhance the potential of shared learning (Robertson, 1994), but this has proved not to be the case (Warner, 1996); there are but a few examples, for the most part restricted to post-graduate level (CAIPE, 1988), for example, rehabilitation and child protection (Storrie, 1992). However, the advanced trauma life support (ATLS) and advanced cardiac life support (ACLS) are examples of multiprofessional skills training programmes in critical care.

It has been suggested that health education has failed to keep up with changes in practice by adhering to conventional monoprofessional education (Humphreys and Quinn, 1994). This may stem from fears of dilution and redundancy (Spratley and Pietroni, 1994) or the need for students to develop their own professional identity (Lucas, 1990; Funnell et al., 1992). Evidence from Europe indicated difficulties and constraints relating to the need for planning, consultation, support and evaluation, and the availability of multiprofessional teaching materials (Areskog, 1991). However, it has been suggested that fragmentation of care would result from failure to adopt a multiprofessional approach to the education of health care professionals (Hilton, 1995).

5.2.3 Clinical supervision

The 1990s have seen an increased emphasis on the personal development of individual nurses through reflective practice (Johns, 1995a; 1995b) and clinical supervision (DoH, 1993a; UKCC, 1996a). Clinical supervision offers supportive and formative development of individual practice rather than the more summative and hierarchical approach of the performance review, and has been widely adopted in the UK (Kohner, 1994). The literature on clinical supervision addresses the topic in three distinct ways (Faugier and Butterworth, 1993):

- the process of the supervisory role, e.g. Faugier's (1992) 'growth and support' model

- the supervisory relationship with the supervisee, e.g. Proctor's interactive model of supervision (Faugier and Butterworth, 1993)
- the main elements of the supervisory function (Kohner, 1994).

Confusion regarding the definition of clinical supervision and its relationship to education, standards and quality, as well as its role in the development of nursing practice, has been highlighted by Vaughan (1994). Despite the suggestion that clinical supervision was central to the process of learning (DoH, 1993a), models of supervision, and the positive benefits for nursing practice, supervisors, supervisees and patients remain largely speculative (Faugier and Butterworth, 1993). Furthermore, clinical supervision can be problematic to implement where innovative practitioners are developing roles that are unique to the local context. This highlights the debate about the nature of the supervisor-supervisee relationship and who should be a clinical supervisor to a practitioner (Kohner, 1994).

5.2.4 Specialist practitioner

The term 'specialist practitioner' refers to clinicians working in hospital and community settings, although it was not envisaged that all nurses working in specialist care would acquire the specialist practitioner qualification (ENB, 1997b). The term was intended to be used for practitioners who exercised *'higher levels of judgement and discretion in clinical care'* (UKCC, 19974: Annexe 1, p3). To this end, specialist practitioners were to undertake a formal programme of education leading to a degree and meet standards set by the UKCC and the Board. The programme would normally involve one academic year of study or part-time equivalent, although this could be reduced if the practitioner could provide evidence of prior learning and experience.

The programme concentrated on four key areas:

- clinical nursing practice
- care and programme management
- clinical practice development
- clinical leadership.

As with others in nursing, specialist practitioner programmes had to give equal weight to theory and practice (ENB, 1997b). From October 1998, these were the only recordable qualifications; however, the UKCC (1996) agreed that programmes developed to meet the standards of specialist practice between October 1995 and October 1998 could be accepted at either diploma or degree level where no previously recordable qualification had existed, for example general nursing practice (ENB, 1997b). Also, first-level practitioners who held a post-registration clinical recordable qualification following a programme at least four months' duration and relevant to their area of practice, and with their employer's verification that the practitioner had the appropriate skills and knowledge to meet UKCC standards could use the title 'specialist practitioner'. Practitioners without an additional qualification in the relevant subject who wished to apply for the title could submit a portfolio of evidence to a Board-approved educational institution.

Although the UKCC did not specify areas of specialist practice other than in the community, it did not intend specialist practitioner programmes to be exclusively for community nurses (UKCC, 1994). Since 1995, many educational institutions have created such programmes (UKCC, 1996b), especially in critical care. However, a letter from the UKCC in 1997 reiterated the criteria for specialist practice because it was having to *'refuse the recording of specialist practice to practitioners who had undertaken a programme in good faith but who have been misled in their eligibility for the recording of their qualification'* (UKCC, 1997b). In the light of such confusion,

BEST COPY AVAILABLE

and mindful that the UKCC was further deliberating on the notion of specialist practice, some lecturers did not push ahead with curriculum development of specialist practice until a final position statement was issued by the UKCC.

In 1998, the notion of higher-level practice was introduced (UKCC, 1998). The change in title was in part to fit more appropriately into the agenda of multiprofessional teamwork, which specialist practice seemed to contradict (Humphris, 1998). It was proposed that a higher-level practitioner would:

- hold a degree (not necessarily in nursing but relevant to their practice)
- have successfully completed a post-registration programme of education
- have no less than three years (full-time equivalent) experience in a specialty (UKCC, 1998).

With the changing use of language to define this other level of practice some uncertainty remains. However, by the very nature of critical care, specialist or higher-level practice is seen to be a key influence in the continuing development of practitioners in that specialty.

5.3 Defining critical care

When proposing standards for post-registration education, the UKCC delineated three areas of care: acute care, continuing care and critical care. Critical care was defined thus: *'nursing which is concerned with crisis intervention and restoring and maintaining balance when physical or mental health is compromised to a life-threatening degree'* (UKCC, 1993: Annexe 2, appendix 1). This definition was used by the RCN as the frame of reference for standards of care in critical care nursing (RCN, 1994a). The notion of the vulnerability of critical care patients was also highlighted: *'such patients are thus particularly vulnerable to the effects (good or bad) of their environment and the technical and therapeutic measures used'* (RCN, 1994a: 3).

A further definition of critical care can be distilled from the Declaration of Madrid, a position statement produced by the British Association of Critical Care Nurses, the American Association of Critical Care Nurses and the Confederation of Australian Critical Care Nurses in 1992. Critical care is defined as: *'a complex specialty developed to serve the delicate health care needs of patients and families with actual or potential life-threatening conditions'* (World Federation of Societies of Intensive and Critical Care Medicine, 1993).

There is also a wealth of literature that emphasises the nursing aspects of critical care, in which humanistic caring skills are as important as technical skills. In this respect, critical care nurses are viewed as the link between the patient and the machine (See Chapter 5.8).

Intensive care and high dependency care have also been defined as 'augmented care', denoting that a patient: *'requires close observation and intervention by additional specially trained staff using medical equipment not routinely available on general hospital wards'* (DoH, 1997a: 3). Both this statement and earlier guidelines for intensive and high dependency care (DoH, 1996a) emphasised the importance of level of care, rather than geographical location.

5.4 The policy context

Policy documents were reviewed in two domains:

- professional
- specific to critical care services.

Within the critical care literature, distinction is made between policy literature/ Government reports and guidelines for practice, the latter often issued by professional bodies, such as the RCN, or pressure groups, such as Action for Sick Children.

5.4.1 Changing configuration of services

Many policy initiatives and recommendations in critical care have focused on reconfiguring services in order to make optimum use of resources and ensure that patient interventions are timely and appropriate. Table 5.1 outlines examples of recent developments for specific aspects of the critical care service.

Specialty	Policy recommendations
Intensive care	Development of high dependency units (DoH, 1996a)
Accident and emergency	Development of minor injuries units (Audit Commission, 1996)
	Development of triage service (DoH, 1991; 1993)
Paediatric intensive care	Framework for designating DGH ICUs suitable to provide PICU care at Level 2 (DoH, 1997d)
	Focus on service for long-term ventilated children (DoH, 1997d)
Operating theatre	Development of day case surgery (Audit Commission, 1990)
Coronary care	Pre-hospital administration of thrombolytic drugs
	Early defibrillation

Table 5.1: Examples of recent policy developments by critical care specialty

These aspects reflected the need to examine the patient case-mix in critical care settings, for example: were some patients inappropriate attendees in A&E?; should some ICU patients be cared for in HDUs? Problems with service provision were also raised by professional bodies; the British Paediatric Association (1993) highlighted the numbers of critically ill children being managed outside PICUs, and the RCN (1994b; 1996) provided data regarding the extent of the 'trolley waits' problem in A&E departments. The high profile of these issues in the professional literature was mirrored in media publicity surrounding the NHS's inability to manage the care of individual patients, e.g. the case of Nicholas Geldard (Wells Report, 1995). These issues suggested the need to redefine and broaden critical care service provision.

5.4.2 Critical care without walls

The vision of health care in the future which focused on more acute care being provided in the community, with a greater emphasis on critical care in hospitals, was highlighted in the Heathrow Debate (DoH, 1994). The definition of intensive and high dependency care as levels of care, rather than geographical locations (DoH,.1996a), underlined the move to a philosophy of *'critical care without walls'*. The importance of developing critical care skills outside CCUs (Gibson, 1997), and the need for nurses on general wards to take early decisions about who to refer for high dependency or intensive care were emphasised (DoH, 1996a); conversely, it has been suggested that ICU nurses could go to the ward and assess patients (Coad, 1998). In another example, the post-operative care team (Goldhill, 1997) provided appropriate management and support to enable prevention, or early recognition, of post-operative problems. Each of these examples highlights the movement of the practitioner to the patient for assessment, rather than the patient into a specialist unit for review. However, concerns about the latter

BEST COPY AVAILABLE

approach included its potential to reduce the skill of ward nurses and the creation of an additional tier in the management of acute and critical care (Gibson, 1997).

5.5 Developments in critical care nursing

The changes affecting nursing have led to developments in all aspects of critical care nursing. These developments are discussed below in the themes recurring in the literature:

- decision-making/autonomy
- centrality of assessment skills
- personal development
- innovative practice.

The care of children in adult critical care settings is explored in some depth as this issue has been highlighted in the health care press and in the media. The review then focuses upon specific developments in:

- accident and emergency nursing
- adult intensive care nursing
- coronary care nursing
- operating department nursing
- paediatric intensive care nursing.

5.5.1 Decision-making/autonomy

The recent focus on clinical decision-making in critical care was highlighted by the DoH, which emphasised the *'minute-by-minute decision-making'* undertaken by the intensive care nurse (DoH, 1996a: 18). Two examples of this were illuminated in a recent RCN survey of shift leaders in ICUs which identified that nurses were reviewing blood gas results and altering ventilation accordingly, and refusing admission for patients if the unit workload was too high (RCN, 1997). The ability to make decisions regarding patient management was suggested as a factor distinguishing the role of the qualified nurse in intensive care from that of the support worker (Endacott, 1996).

The individual autonomy of ICU nurses caring for patients was highlighted, with strategies such as prioritising and gate-keeping forming part of the nurse's role. The presence of a high proportion of inexperienced nurses on a shift had an impact on the role of the shift leader, who had to prioritise for the less experienced nurses (Endacott, 1998; 1999).

Debates about nurses' use of intuition were brought into focus in critical care, the clinical setting in which much of the work of Benner and colleagues was undertaken (Benner, 1984; Benner and Wrubel, 1989; Benner et al., 1996). This work has been subject to much methodological and philosophical debate (English, 1993; Darbyshire, 1994; Cash, 1995; Benner, 1996); however it continues to influence critical care education, in particular the assessment of nurses undertaking post-registration programmes (Lemmer and O'Riordan, 1997).

An alternative explanation to intuition (Scholes, 1996) used the term 'lighthousing' to describe the rhythmic practice of ICU nurses who were observed regularly (subconsciously) scanning monitoring equipment and immediately acting upon an alteration in a patient's read-outs. Only when the nurses were shown a video recording of their activities did they became aware of their 'lighthousing'; they had assumed that they reacted out of intuition or looked up at the equipment by chance, when they actually scanned this information at regular intervals.

BEST COPY AVAILABLE

In another study conducted in paediatric and general ICUs, it was identified that a 'hunch' or intuitive grasp of an impending problem would only initiate anticipatory action on the part of the nurses (for example, getting ready to give a drug); the action would not be undertaken until there was empirical data to support the hunch (Endacott, 1998).

Ethical decision-making was also a recurrent theme in the literature. It has been suggested that the capacity to *'support vital functions almost indefinitely'* (Rapin, 1987) results in decisions about withdrawing treatment or providing care for those who have become dependent on technology such as mechanical ventilation. The extent of this problem is highlighted in PICUs (Fraser et al., 1997), with one unit using 42% of its beds for this purpose at one stage (James, 1996). Ethical aspects of care are also reflected in issues such as the labelling of patients who attend A&E departments with non-urgent illnesses or injuries (Jeffery, 1979; Sbaih, 1993; Walsh, 1995); this is explored in greater detail in Section 5.7.

Respect for patient autonomy was apparent in the literature, with a focus on ensuring the patient and family were given information to enable them to make decisions about care. The nursing role emphasised the need to ensure patients were informed at all stages, for example: theatre nurses providing written information (Lear, 1993); ICU nurses visiting patients prior to elective surgery (Cheetham, 1993) or providing a follow-up clinic to enable them to explore their experiences (Hall-Smith et al., 1997). In coronary care, discussion of the care plan with the patient was highlighted (Caunt, 1992), while the ethos of family-centred care underpinning nursing practice in paediatric intensive care was given high priority (Purcell, 1993).

5.5.2 Centrality of assessment skills

Nurse-led triage and nurse practitioner (NP) roles were examples of A&E nurses undertaking initial assessment which required them to *'rapidly assimilate information, often beyond the presenting problem'* (RCN, 1994a: 7). Initial patient assessment was the central theme in Sbaih's (1997) exploration of how nurses 'become' A&E nurses. Nurses expressed practical concerns with the dual agenda of safely assessing the patient and meeting targets set by the Patients' Charter (i.e. undertaking initial assessment of the patient within a specified time frame). The work highlighted how the initial patient assessment had the potential to affect the workload of the whole department.

The link between the assessment skills of coronary care nurses and the ability to initiate appropriate management, emphasised the nurses' role in early defibrillation (Quinn, 1998) and timely use of thrombolytic therapy (Caunt, 1992). The ongoing nature of nursing assessment was emphasised in the prevention of myocardial infarction (MI) for patients admitted with unstable angina (Caunt, 1992) and the importance of nurses' vigilance in recognising 'silent ischaemia' (unaccompanied by pain) through symptoms of myocardial insufficiency (Todd, 1997).

In intensive care, examples included nurses titrating drugs according to patient responses and undertaking blood gas analysis and altering ventilation according to the results (RCN, 1997). Changes in medical practice emphasised the ongoing assessment undertaken by ICU nurses (Endacott, 1996), for example, the use of support (rather than fully-controlled) modes of ventilation (Ritz, 1991) and the use of sedation to keep patients lightly sedated and easily aroused (Reeve and Wallace, 1991). New developments in critical care (e.g. balloon mitral valvuloplasty) also incorporate a central nursing role in assessing, and supporting, the patient during a procedure (Lamerton and Albarran, 1997).

5.5.3 Personal development

The personal development of individual nurses was emphasised in the wider literature through reflective practice and clinical supervision (Section 5.2.3). This theme was also reflected in the UK critical care journals, which emphasised personal development in order to use self in a therapeutic manner with the patients (Scholes, 1996; Scholes and Moore, 1997). It was suggested that the therapeutic use of self could only be achieved once the nurse had demonstrated mastery of the environment; a profound knowledge base grounded in critical care practice; and the confidence to practise in this way (Scholes and Moore, 1997). A critical issue was how nurses got in touch with such ways of knowing, and Johns (1997) argued that this could be facilitated through reflection and clinical supervision.

Technology has altered the focus on patients' needs and allowed the distinction to be drawn between visible needs, measurable by equipment, and invisible needs met by nursing care (Carnevale, 1991). Masson (1985) eloquently suggested that medicine uses tools for which technology is necessary, nursing uses self for which time is necessary. The capacity for developing knowledge unique to nursing and finding a language with which to articulate the role of nursing in meeting invisible needs come through clinical supervision and using reflective practice (Johns, 1993).

On a more practical level, the personal development of critical care nurses has focused upon enhancing communication (Pearce, 1994) and counselling skills (Burnard, 1994) alongside the broad scientific knowledge required for practice (Ball, 1997). There has been a call for studies to describe the totality of nursing work (Chellel et al., 1995; RCN, 1995) and to examine the link between the sickness of the patient and nursing dependency (DoH, 1996a). Each of these measures hoped to make explicit the implicit or invisible aspects of care that, in some cases, could be undervalued by the nurse or omitted from workload planning.

5.5.4 Innovative practice

The impact of general policy changes (Section 5.2.1) was reflected in the literature relating to each of the specialties. Some expanded roles took on responsibilities normally associated with junior doctors, for example the emergency nurse practitioner (NP), which Read et al. (1992) defined as: *'a nurse who is authorised to assess and treat patients attending an accident and emergency department, either as an alternative to the patient being seen by a doctor, or in the absence of a doctor in the department where a continuous medical presence is not maintained'* (Read et al., 1992; cited by Read, 1997: 72).

To free nurses to take on such a role, they had to delegate activities to others which has led to the debate about the use of support workers in A&E (RCN A&E Association, 1997) and ICU (Endacott, 1996). In theatres, the development of the operating department practitioner (ODP) has required an examination of the roles previously undertaken by operating department assistants (ODAs) and theatre nurses (Greaves, 1993). Some new critical care roles could have an impact on other settings, for example, nurse-led thrombolysis (Caunt, 1996) and chest pain assessment (Alderman, 1996) which could be undertaken by practitioners based in an A&E department or CCU. Although these have a distinctive substitution role, there was also an emphasis on the importance of nurses retaining the caring role to complement the technical (curing) skill in order to promote high-quality patient care (Hudson, 1993).

Inevitably, some changes in the nursing role will have economic benefits, for example, early extubation of post-operative patients by nurses resulting in shorter stays in ICU (Anderson and O'Brien, 1995; Jenkins, 1997), and elective cardioversion by nurses on medical wards preventing use of a coronary care bed (Quinn, 1998). However, Richardson and Maynard

BEST COPY AVAILABLE

(1995) called for further studies to identify the economic benefits of new roles and the impact on patient outcomes.

5.6 The care of children in adult settings

The management of children in adult-orientated critical care settings has been highlighted during the 1990s, both in the health care press and the media (Bush, 1993). It has been suggested that this was not a new problem but that heightened awareness had changed professional and public perceptions, resulting in new policy initiatives and pressure for action (Endacott, 1997).

Issues involved with the management of critically ill children in adult intensive care settings were highlighted by the British Paediatric Association (BPA), which emphasised the uniqueness of the child: *'The critically ill child is first and foremost a child and requires care from medical and nursing staff trained in paediatrics and in the paediatric aspects of intensive care. The more seriously ill the child, the more important it is that the nursing and medical team are attuned to problems which are peculiar to paediatrics'* (BPA, 1987: 4).

The *'children are different'* focus was highlighted in the Platt Report (1959), which emphasised treatment of the child, rather than the illness. Conversely, the uniqueness of illness as manifested in children was also emphasised, highlighting illnesses that only occur in childhood (BPA, 1987) or have a different presentation in children (DoH, 1997c).

Although 25% of A&E admissions were children, this was not reflected in the provision of paediatric facilities, which was described as *'frequently poor'* (Audit Commission, 1996), with recruitment of RSCNs falling below DoH recommendations (DoH, 1991b; Bentley, 1996). Similar criticism was levelled at general ICUs, with the suggestion that virtually all children should be transferred to PICU facilities (BPA, 1993).

The different skills required when caring for children, were emphasised, with a focus on observation skills, psychological support of the child and the teaching and support of parents to enable them to become involved in their child's care (Audit Commission, 1993). Recent findings suggested that these skills were employed in both general and paediatric ICUs (Endacott, 1998) and latest policy recommendations confirmed that critically ill children would be managed on general ICUs at designated district general hospitals (DoH, 1997c). As a general principle, it was recommended that the same standards apply to adult as paediatric settings, i.e. the presence of children's nurses and the availability of specialist paediatric equipment (DoH, 1991a).

Within the UK critical care nursing literature, the care of children was a recurring theme, particularly in A&E and intensive care journals. These explored topics ranging from ethical concerns such as parents witnessing resuscitation (van der Woning, 1997; Jarvis, 1998) to specific aspects of clinical practice such as pain assessment and management (Atherton, 1995), anxiety management (Walker, 1996) and professional issues (Kitching, 1998).

5.7 Accident and emergency nursing

Although the main focus of critical care is the management of the patient through critical illness, increasingly the role is expanding to include aspects of care outside that life-threatening crisis; for example, coronary care nurses are involved in cardiac rehabilitation (Thompson and Bowman, 1998), and ICU nurses conducting outpatient follow-up clinics (Hall-Smith et al., 1997). However, for A&E nursing, this has always been the case, as the majority of patients are not critically ill. Crouch (1997) estimated that this group only accounted for approximately 20% of total nursing workload, while the Audit Commission (1996) found that the most severely-injured patients make up 1% of A&E admissions. Concerns regarding

BEST COPY AVAILABLE

the high mortality of this small group led to the adoption of protocol-based training (ATLS and Trauma Nursing Core Course). Therefore, although not making up the bulk of patient need, the immediacy and potential complexity of patients' needs had resulted in a heavy emphasis on this aspect of the work (Crouch et al., 1996). This has been influenced by the value associated with this practice and has implicitly been reinforced as the main workload of the department through television programmes such as *'Casualty'* and *'ER'*.

Public perception of A&E services was a recurrent theme in the literature, which highlighted the differing perceptions of the public and health-care professionals (Crouch, 1992; Sbaih, 1993; Steel, 1995). Some patients were labelled *'inappropriate attenders'*, *'deviant'* (Jeffery, 1979) or *'rule breakers'* (Sbaih, 1993). Exploration of the reasons for attending suggested that patients did not want to inappropriately attend but weighed up the costs and benefits before deciding to present at the A&E department (Walsh, 1995). Suggestions have been made that the service needs to change to meet patients' needs (Steel, 1995; Walsh, 1995). Given this focus on the primary care orientation of A&E work, it was interesting to note yet another contradiction, that acutely sick medical and surgical patients account for the increase in A&E workload (Audit Commission, 1996).

Health education was stressed as an important role for the A&E department (Walsh, 1990). McKenna (1993) emphasised the need for nurses to be more politically aware and provide advice regarding patients' rights and access to health and social services in the community. However, McKenna (1993) also cautioned that it was not wise to offer health advice without the time to explore the patients' lifestyle and health beliefs, while Sbaih (1997) highlighted that time to undertake this type of assessment might not be immediately available.

A&E has been defined as the interface between primary and secondary care (RCN, 1994c; Crouch et al., 1997), belonging to the broader community, rather than the hospital. This philosophy was also emphasised in role developments like NP-run minor injuries clinics or primary care units within A&E departments. Such initiatives had reduced waiting times and improved systems for referral and communication with primary care facilities (Beales, 1997). However, consensus was lacking on such an approach; one study showed more negative attitudes (less sympathy, less motivation to help, more irritation) towards patients with primary care needs, and attendance at the A&E department was perceived as illegitimate if the patient had delayed seeking health care (Crouch and Dale, 1994). Similar findings were reported in a study exploring nurse-patient communication in A&E which highlighted nurses' perceptions of their role as providing urgent physical care and dealing with emergencies (Byrne and Heyman, 1997). This view appears to have been held constant over time; work in the early 1980s identified that A&E nurses least liked non-urgent work and viewed it as unskilled (Lewis and Bradbury, 1982).

The concept of A&E as an interface between primary and secondary care was further evidenced in studies exploring communication between departments and health visitors, for example on discharge of elderly patients (Runciman et al., 1996) and notification of childhood accidents (Bentley, 1996). Recommendations have also been made to improve liaison between A&E departments and social services (Audit Commission, 1996).

The development of NP roles in A&E highlighted the broad and diverse workload which had the potential to reduce the nursing component of care (Dowling et al., 1995). Specific aspects of the NP role have been studied (Meek et al., 1998; Read et al., in press). Meek et al. (1998) identified that NPs' interpretation of radiographs were comparable to those of senior house officers. However, Tye (1997) expressed concern about the inconsistencies in education and paucity of evidence accompanying the rapid development in NP roles, while Crinson (1995) expressed concern about the *'fast tracking'* of patients with minor injuries, as a result of NP presence, to the possible detriment of a more holistic approach.

BEST COPY AVAILABLE

Although there are few A&E departments in the UK that do not use nurse triage (Gorton, 1993; cited in McDonald et al., 1995), studies examining the impact of triage on patient care were inconclusive and controversial (Mallet and Woolwich, 1990; 1991; George et al., 1991; 1992; 1993; Porter, 1992; Heyworth, 1992; Dale, 1992). A study comparing the prospective patient assessment (n = 1,213) undertaken by nurses and retrospective assessment by A&E consultants found that patients were assessed as more urgent prospectively than retrospectively. Furthermore, nurses' assessments of children and patients with eye complaints were given priority (George et al., 1993).

The literature also highlighted the development of in-house courses to address specific aspects of practice, for example sudden bereavement (Tye, 1996) and the management of A&E patients with primary care needs (Crouch et al., 1997).

5.8 Adult intensive care nursing

It has been suggested that increasing technology has resulted in greater emphasis on the presence of the nurse at the bedside (Parsons, 1994; DoH 1996a). The advocacy role has been conceptualised as the nurse acting as a *'constant care shield'* for the patient (RCN, 1994a). The theme of shielding patients was also reflected in the technology:caring discourse. These two dimensions of intensive care have been described as paradoxical as they hold in tension objective values of science and subjective values of human wellbeing (Cooper, 1993). Walters (1995) argued that a central role of critical care nurses was to humanise the technology and act as a lens through which the patient and family could put the ICU environment into focus (Ashworth, 1990; Zainal and Scholes, 1997).

Studies of neophyte ICU nurses emphasised their need to become accustomed to the technology before they could address patients' needs (Wilkinson, 1992; Leatheart, 1994; Walters, 1995); less experienced nurses felt swamped by information from the various monitoring systems and alarms (Scholes and Smith, 1997). One way to overcome this could be through a facilitated induction programme and ongoing preceptorship from a more experienced intensive care nurse.

Changes in the intensive care nursing role have focused on adding new areas of practice, rather than creating new roles. Examples of this can be seen in the development of nurse-led follow-up clinics for ICU patients (Hall-Smith et al., 1997) and nurses taking on areas of practice formerly undertaken by doctors, such as extubation (Anderson and O'Brien, 1995; Jenkins, 1997), acting on the results of blood gases (RCN, 1997), and altering artificial ventilation settings (RCN, 1997).

The three areas of activity above are more prevalent in larger ICUs (RCN, 1997), suggesting that they are more likely to be undertaken by the individual nurse caring for the patient, rather than the shift leader (Endacott and Dawson, 1997). However, aspects of nursing work identified in the RCN (1997) telephone survey did not demonstrate any clear pattern (for example, nurses who extubated patients were not more likely to change ventilator settings and *vice versa*). Respondents identified a range of organisational, workload and professional changes in their individual units. The researchers suggested these changes demonstrated that nursing practice was changing according to patient need (RCN, 1997), in keeping with the ethos of *The Scope of Professional Practice* (UKCC, 1992a). However, these data were collected by the RCN for political reasons, in order to explore the clinical decisions taken by nurses and provide support for the 1:1 nurse:patient ratio in ICU (Endacott and Dawson, 1997).

5.9 Coronary care nursing

Reduction in mortality following the establishment of CCUs was directly attributed to the skills of coronary care nurses, with emphasis on nurses making decisions in emergency situations and defibrillating patients without the doctor having to be present (Meltzer, 1962; cited in Caunt, 1992). The balance has now shifted to greater emphasis on aspects of care such as providing emotional support and assessing all patient needs, as well as possessing technical and decision-making skills (Caunt, 1992), a caring as well as a curing role (Hudson, 1993).

Pain assessment has been identified as a central part of the nursing role, both assessing the effectiveness of analgesia and distinguishing between pain occurring due to the natural process of the disease and pain signalling a deterioration in cardiac function (Caunt, 1992). While nurses' and patients' perceptions of chest pain were closely correlated (Thompson et al., 1994), concern has been expressed about patients who delay, or fail, to report their chest pain (Mackintosh, 1994). These studies illuminated the range of skills and roles encompassed within contemporary coronary care nursing.

Within coronary care nursing, the shift from a medical needs approach to one encompassing health-care needs has been attributed to the introduction of primary nursing, which enabled nurses to take on three roles which were key in enabling them to act as resources for their patients as: health educator/promoters, technicians, and therapeutic agents (Graham, 1992), for example the therapeutic role of the coronary care nurse in inspiring hope (Cutcliffe, 1996). Primary nursing can be viewed as both an organisational tool, enabling continuity of care, and a philosophy, valuing the therapeutic relationship with the patient and focusing on the patient rather than the task (Manley, 1994). In intensive care, UK studies identified that primary nursing improved nurse-patient communication (Manley, Hamill and Hanlon, 1996) and increased the job satisfaction of nurses (Manley, Cruse and Keogh, 1996).

5.10 Operating department nursing

The configuration of staffing in operating departments has been the subject of debate for years. The Lewin Report (Central Health Services Council, 1970) stimulated the delineation of nursing and ODA roles, with nurses taking on the 'scrub' role and working in recovery area while ODAs predominantly assisted the anaesthetist. Almost 20 years later, a comprehensive review of operating departments concluded that nurses and ODAs should work and train more closely together (Bevan Report, 1989). Subsequent developments of the more generic ODP role meant that nurses or ODAs, with relevant educational preparation, could fulfil the post. Bevan (1990) criticised post-registration education of nurses, but recommendations in this report (identifying nurses as support staff along with ODAs) and the lack of recognition of the nursing role in theatres, raised objections among the nursing profession (Jones, 1990). More recently, education for both groups of theatre practitioners has been subject to criticism; the Board's theatre course has been criticised for too much emphasis on theory and the ODP qualification (awarded by the NCVQ) for focusing too heavily on practical competence (NHSE, 1996).

The nature of the contemporary nursing role in theatres has been held responsible for the devaluing of theatres as a placement for pre-registration students, affecting subsequent recruitment and retention (Barker, 1996); indeed, some question the role of the nurse in theatre at all (Conway, 1995). Conversely, it has been suggested that the nursing profession should take responsibility for the image of theatre nurses and be more positive in recognising the diversity of experience offered by the operating department (Radford, 1998).

Key areas of nursing practice in the operating theatre identified by the main professional body (NATN, 1992) revolve around the following areas:

- professional issues (accountability, quality assurance, maximising effectiveness and efficiency, assessing manpower and financial implications of new approaches)
- emphasising and promoting individual patient need (providing individual care, ensuring changes in care delivery reflect patient need)
- communicating (maintaining continuity of care when patient transferred, co-ordinating care, leading and supervising nursing care, encouraging liaison with others)
- knowledge base (use and dissemination of specialist knowledge, research-based knowledge to improve care).

Potential abuse of the nursing role in theatres was highlighted in discussions regarding the nurse acting as first assistant to the surgeon (Willis, 1998). Particular concern was expressed that the primary role of the scrub nurse was not compromised by taking on the additional duties of first assistant and that nurses understood the arising issues of accountability (NATN, 1993), reflecting the principles laid down by the UKCC (1992a).

5.11 Paediatric intensive care nursing

Debates surrounding the provision of care for critically ill children (Section 5.6) resulted in tensions within nursing about how and where children should receive care (Buckingham, 1993; Pearce et al., 1993; Price, 1994; Fulbrook et al., 1996). While much of the literature which made recommendations for practice was based on anecdote (Green, 1991; Craft, 1995; Palmer, 1996), published studies focused on parents' needs (Farrell and Frost, 1992; Scothern et al., 1992; Haines et al., 1995). Key areas studied included the aspects of care undertaken by parents in ICU (Cox, 1992); the promotion of a partnership between nurses and parents (Hill, 1996); and the parental role in assessing pain (Hall, 1995) and making ethical decisions (Brykczynska, 1989).

In both general and paediatric intensive care, bed closures due to staffing shortages (DoH, 1996c; DoH, 1997e) have sharpened the focus on developing support roles. This led to exploration of the nursing contribution to care. An examination of the care of children by nurses in general and paediatric ICUs revealed a hierarchy of activities relating to the experience of the nurse allocated to care for the child (Endacott, 1998; 1999). Nurses' confidence to stand up for what was best for the child was reflected in gate-keeping and prioritising activities in the practice of experienced nurses. Less experienced nurses had not developed these skills and concentrated on getting the job done. This affected the workload of the shift leader who had to prioritise on behalf of those practitioners (Endacott, 1998).

5.12 Conclusion

The review of the clinical context has highlighted the many recent changes that have impacted on, or been initiated by, critical care nurses. These have direct bearing upon the provision of education that is responsive to the reconfiguration of services and the rapidly expanding role of the critical care practitioner. Chapter 6 analyses the critical care curriculum to identify the way in which critical care programmes of education (as of 1 April 1998) met these challenges.

THE DOCUMENTARY ANALYSIS: CURRICULUM OVERVIEW

Key points

- Curriculum documents differed from each other. This seemed to be related more to the 'house style' of the educational institution than any other factor, and made comparison of data a complex task. It was not possible to fully gauge the relationship of the written document to the lived experience of the curriculum, therefore, the findings are tentative.
- The programmes appeared to be configured into six theoretical types, based upon the number of credits the ENB award attracted at different academic levels, for example, from 30-90 credits at Level 2 to 120 at Level 3. A total of 10 institutions offered critical care programmes fully configured to either a diploma or degree, while four weighted critical care programmes to less than 60 Level 2 or Level 3 credits. There was no consistent pattern in the configuration and weighting of core, specialist or cluster modules.
- There appeared to be a general drift away from formal curriculum models in favour of modular frameworks (which may or may not have explicitly referred to a professional framework such as the Board's Higher Award (ENB, 1991) or Specialist Practice (UKCC, 1994).
- Two distinct approaches to the generation of practice outcomes were evident: pre-determined outcomes (set by the curriculum development team), or student-determined outcomes (based on the application of module content by the student, or negotiated between the student, clinical manager and programme leader).
- The way in which practice was assessed, and the specificity of practice learning outcomes, varied considerably by institution raising significant questions about the national comparability of practice assessment.

6.1 Introduction

This chapter presents an analysis of curricula returned to the research team (n = 105). The documentation represents 30 educational institutions: 26 returned their full portfolio of requested critical care programmes, while four returned specific programmes only. Each institution was randomly ascribed a number. The data are displayed with the number of the institution and the programme number.

6.2 An examination of credit and level

Three forms of CAT system were used by institutions in the sample:

- the CNAA/SCOTCAT 120 credits rating system per level (equating to the equivalent of one academic year's study time per level)
- the MODCAT system whereby each module is set at 2.5 MODCAT
- one institution offered students 360 Level 3 credits to make a degree (as Level 2 and Level 1 credits were not recognised).

Six clear theoretical 'types' of critical care programme were elicited, although the research team did pick up 12 programmes which had an idiosyncratic mix of modules, or different credit outcomes dependent on the level of the programme. These are listed in Table 6.1.

BEST COPY AVAILABLE

Category	Theoretical type of programme	Number
A	ENB Award [30-90 credits at Level 2]	41
B	ENB Award configured as a full diploma	20
C	ENB Award [part of a degree/diploma] run at either Level 2 or Level 3	15
D	ENB Award configured as either a full diploma or degree	5
E	ENB Award [60-90 credits at Level 3]	10
F	ENB Award/Specialist Practice – configured as a full degree	3
G	Others	
	ENB Award mixed-level credit options 2+ 2/3 or 2+3 credits	7
	ENB Award full diploma or part degree	4
	Total	**105**

Table 6.1: Types of critical care programme

Category F illuminated a potential confusion. Certain institutions labelled their programmes with the affix: 'SP 100, 124' etc. to indicate a route towards a specialist practice award and were labelled with the Board's clinical programme numbers to ensure they were 'recognisable' to students and their managers. This became even more confusing when certain institutions did call their Board clinical programmes 'specialist practice programmes'.

Categories A, B, C and E were straightforward. However, when the Board's clinical programmes award was configured as a full diploma or degree there were inconsistencies. For example, because programmes sought to be as flexible as possible, they offered any module to students and purchasers on request (as a 'standalone' module). Therefore, theoretically, students could undertake modules which constituted a separate ENB award falling short of credits to make up either the degree or diploma. However, lecturers cautioned us that in practice, students did complete the full award and in certain instances were not made aware of the option to exit the programme with modules that made up the numbered clinical programme. This situation was more likely in Level 3 programmes, because at Level 2 the preliminary generic modules were prerequisites to the specialist modules to make up the award.

The research team was struck by the variety and complexity of each programme. It took considerable time to gain an understanding of the different programmes, packages and options on offer. So even basic scrutiny of what constituted an ENB clinical award and the number of credits attached to that programme, was in some cases rendered opaque by the curriculum documentation. Table 6.2 summarises the number of programmes run at the different levels.

Programme	Level 2	Level 2/3	Level 3	Levels 2+3	Level 2/2+3	Total
ENB 100	15	8	4	1	1	29
ENB 124	12	7	3	0	1	23
ENB 176	8	0	0	0	1	9
ENB 183	6	2	2	0	0	10
ENB 199	13	7	4	1	1	26
ENB 415	7	0	0	0	1	8
Total	61	24	13	2	5	105

Table 6.2: Number of programmes run at different levels

Educational institutions record a student as either full- or part-time dependent on the amount of learning hours or the number of modules undertaken at any one time, i.e. some programmes were termed full-time when they reflected a model of day release over one year to attend college relative to a part-time programme being completed over three years. However, lecturers suggested that some students attended college on their day off so they could complete the programme in a shorter period (by completing more modules at one time), and were considered full-time students by the institution but part-time students by the clinical managers (as they fulfilled sufficient service-rostered hours). Further confusion arises when the mode of study is identified as part-time in the definitive document, but the institution allows the students to complete their programme as though they were full-time students (Focus Group, 4 3.10.98).

6.3 Theoretical frameworks

All the curricula submitted were in a modular framework. Nine institutions referred to a curriculum model, 10 referred to a professional model/philosophy of care, and six sent curriculum documentation which did not refer to any framework or curriculum model (although they sent module outlines indicating they used the modular framework). Eight other institutions made explicit reference to the modular framework as the over-riding 'curriculum model'.

Eighteen institutions stated a philosophy integrating education (principles of adult and experiential learning) and values and beliefs about critical care nursing; eight of these made explicit their philosophy but did not refer to any other curriculum model. Three institutions made no reference to a curriculum model or a philosophy while five referred to the modular framework only (Table 6.3). Two referred to the ENB Higher Award without stating a critical care programme philosophy and two others cited a professional model without explicit reference to a programme philosophy.

Although these findings may be influenced by the type of documentation sent to the research team (i.e. sometimes the curriculum model was referred to in the student's handbook, but more commonly in the definitive programme document) there seemed to be a general drift away from formal curriculum models in favour of modular frameworks – although Walker (1996) argues that the modular approach has its own conceptual framework. Some institutions used their rationale for the programme to make statements which might have more commonly been framed a 'philosophy'; others gave great detail to the educational philosophy, a philosophy of critical care and a philosophy of assessment. All documents (bar those from three institutions) made some reference under one of the headings (curriculum model/philosophy/rationale) to Knowles' (1984) theory of learning (androgogy) and valuing the experience brought to the programme by adult learners (although this was not necessarily acknowledged to Knowles).

Although critical reflection was mentioned in all the institutions' documentation (and this invariably was about linking theory to practice), only six institutions identified a model for reflective practice.

Institution	Curriculum framework	Philosophy	Model of reflection
1.	Modular framework		
2.	Hillier (1997); Benner (1984); Specialist Practice (UKCC, 1994)	✓	Schön (1991)
3.	Specialist Practice (UKCC, 1994)	✓	
4.	Modular framework		Goodman (1984); Murphy and Atkins (1994); Schön (1991)
5.	None stated		
6.	Benner and Wrubel (1989)		Schön (1991)
7.	'Core curriculum approach'; Henderson (1965)	✓	
8.	Specialist Practice (UKCC, 1994)	✓	
9.	Lawton (1982); Knowles (1984)	✓	
10.	Modular framework		
11.	Modular framework		
12.	Eraut et al. (1995)		
13.	Brunner (1966); Pfeiffer and Jones (undated); Knowles (1984)	✓	
14.	Modular framework	✓	
15.	Modular framework	✓	
16.	Modular framework	✓	
17.	None stated	✓	
18.	Androgogy – pedagogy continuum	✓	Schön (1991)
19.	Specialist Practice (UKCC, 1994)	✓	Schön (1991); Johns (1993)
20.	Beattie (1987); Benner (1984)	✓	
21.	Beattie (1987)	✓	
22.	ENB Higher Award		
23.	Modular framework		
24.	Skilbeck (undated and unreferenced)	✓	
25.	None stated	✓	
26.	ENB Higher Award		Goodlad (1979)
27.	None stated		
28.	None stated		
29.	None stated	✓	
30.	Beattie (1987)	✓	

Table 6.3; Curriculum frameworks: philosophies and models of reflection

6.3.1 Theoretical frameworks for practice

The ENB Higher Award's 10 Key Characteristics were used explicitly by nine institutions to frame their practice assessment documentation. The most commonly-used framework to inform levels of practice and progression (clinical development) throughout the programme was Benner (1984). Another method of demonstrating progression was through

BEST COPY AVAILABLE

Steinaker and Bell's (1979) experiential taxonomy (See Section 6.8.2). The theoretical frameworks cited by the institutions included:

- ENB Higher Award (9)
- Benner (1984) for levels of practice (7)
- Steinaker and Bell (1979) (5)
- Specialist Practice (UKCC, 1994) (4)
- Bloom, Bondy and Benner (unreferenced) (1)
- HE Welsh Credit Scheme (1996) (1)
- Richmond Profiles (unreferenced) and Benner (1984) (1)

6.4 Constituency

Identifying constituency was thought important following analysis of the issues raised by the lecturers in the telephone interview, i.e. that this greatly influenced the level of abstraction to which learning outcomes and practice assessment documents were written as they covered so many diverse clinical settings. However, the documentation was not explicit enough to draw any conclusions about the number of clinical environments any one institution served, especially as the flexible programmes meant that students could be recruited from any locality.

6.5 Entry criteria

Entry criteria were fairly standard and in keeping with the Board's requirements, i.e. six months or the equivalent of post-registration clinical experience; 19 institutions stated this as a minimum requirement. Only one institution stated that the student needed to be working in the specialty without any indication for how long, but four others did not indicate the length of clinical experience prior to acceptance on the programme. Three programmes run at Level 2 required one year's clinical experience, whereas three institutions running Level 3 programmes requested the student have one year's clinical experience in the specialty.

The academic and professional criteria for entry into the programme were standard in 25 institutions, explicitly requiring 120 Level 1 credits and or registration for Level 2 programmes; and 120 Level 2 credits / AP(E)L for Level 3 programmes. The remaining five institutions were not explicit about the entry criteria. Two institutions stated that entrants to the Board's clinical programmes could be registered nurses or operating department assistants (with relevant CATS credits), and two others offered ENB programmes to health/social care practitioners as well as nurses. However, many modules, particularly core generic modules, were open to any health care professionals.

6.6 Programme structure/shared content

The next stage of the analysis was to identify how much of the programmes were shared and how much was specific to either critical care programmes or the Board's numbered clinical programme. In the telephone interviews, many lecturers identified that they were returning to more specific seminars and tutorials for specialist environments. In this way core concepts were being applied to specific situations. Examples of the type of modules which sat in core generic, core specialist or cluster are presented below:

Core generic (available to all students)

- research
- professional studies
- options: e.g. management, ethics
- teaching and learning modules/998
- biological sciences

Core specialist (available to critical care programme students)

- concepts of critical care
- the application of physiology to the critically ill patient
- nursing in acute and critical care
- the helping relationship

Cluster (delivered to students undertaking a Board clinical programme)

- 'specialist' module
- 'clinical' module
- universal elements of A&E nursing
- specialist elements of theatre nursing
- professional issues in paediatric nursing
- CCU nursing in perspective.

Table 6.4 illustrates the percentage weighting of these types of modules by institution (and by programme where this differed). Because the number of credits awarded by a institution could differ (e.g. 30 credits = diploma/degree in one institution and 120 = degree in another), the relative value of the credit is shown as a percentage. Similarly, credits awarded to different modules varied, so configuration of individual programmes was explored and weighted according to the total programme credits allocated to either core generic, core specialist or cluster modules. Decisions were made about shared learning through the examination of the pre-requisites of the modules and also examining the compulsory modules for specific programmes.

Institute	Core generic	Core specialist	Cluster	Level
1.	50%		50%	2/3 P
2.	22%	11%	67%	3 P
3.	50%	25%	25%	3 F
4.	44%		56%	2 P
5.	16.5%		83.5%	2 P
6.	33.3%		66.6%	2 P
7.	43%	28.5%	28.5%	2 P
8. ENB 100	0	40%	60%	3 P
ENB 124	0	60%	40%	
ENB 183	0	20%	80%	
ENB 199	0	20%	80%	
9.			100%	2% + 2/3 P
10. ENB 100	–	44.5%	55.5%	2 P
ENB 124	–	44.5%	55.5%	
ENB 183	–	–	100%	
ENB 199	11.1%	11.1%	77.7%	2/3 P
11.	25%	25%	50%	2/3 P
12.			100%	2 P
13.		50%	50%	2 F
	50%		50%	3 P
14.	50%	33%	17%	2 F
	66%	17%	17%	3 F
15.	25%	25%	50%	2 P
		33.3%	66.6%	3 P
16.	20%		80%	2 F
17.			100%	2 P
18.		62.5%	37.5%	2 F
		57%	43%	3 P
19.	44%		56%	2 P
20.	50%	25%	25%	2+3 P + 2 P
21.	50%	42%	8%	2 F
22.	84%		16%	2 F
23.	50%		50%	2 P
24.	20%		80%	2 P
25.	50%	12.5%	37.5%	2/3 F
26.	75%		25%	2 P
27.	50%		50%	2/3 P
28.	25%		75%	3 P
29.		50%	50%	2 F
			100%	3 P
30.	40%		60%	2 F

Table 6.4: Percentage weighting of Board clinical programmes by core generic; core specialist; and cluster modules

Sharing more commonly occurred across core generic topics such as research, professional studies and option modules (only five institutions did not have any generic core modules in their Board programmes):

- twelve institutions had the core generic modules constituting ≥ 50% of the programme, three offered Board clinical programmes integral to the full degree award, six offered the Board programme integral to the full diploma award
- five institutions had ≥ 50% of their Board clinical programmes made up of core generic modules (i.e. where the student could exit with CAT credits which fell short of the full academic award)
- of the 13 institutions running their Board clinical programmes at Level 3, six had ≥ 50% of their programme made up of core generic modules, but five also ran this type of weighting in their Level 2 programmes
- a further four institutions had ≥ 50% of their programmes run at Level 2 made up of core generic modules.

The above findings contradict any notion that because a programme is run at Level 3 it is more heavily weighted with core generic modules.

Less than half the institutions (14) offered shared modules (core specialist) with other students on critical care programmes. In these cases, much of what was shared was between students on different Board clinical programmes but common clinical specialties (e.g. ENB 183 with ENB 176; ENB 100 with ENB 125 and ENB 124 students etc.). However, the research team acknowledges the limitations of identifying specialist content through programme documentation alone. It was not possible to determine the extent to which the intent of core modules was related to the specialty by the individual lecturer (or to what extent the student was expected to do this through personal assignments or in tutorials).

All institutions offered cluster modules and only 10 offered less than 50% of the programme in cluster format. In one institution this constituted 8% of the programme (although with the specialist core modules this constituted 50% of the programme). Of the other nine institutions only three had less than 50% of the programme that was either cluster or specialist core. Two of these programmes were run at Level 2.

There was no clear pattern across institutions to account for the distribution weighting of the core generic, core specialist and cluster modules. Indeed, the level of sharing between the critical care programmes was not influenced by the number of programmes in the institution's portfolio – of the 18 institutions offering four or more of the sample programmes included in this study, 11 did not appear to offer core specialist modules (based on evidence of sharing displayed in module outlines; pathway descriptors or module option lists).

It was impossible to gauge how much of the programme, and how many of the programmes, were open to multiprofessional shared learning. Of the 18 institutions who stated a programme philosophy, many also mentioned the principle of shared learning. This was sometimes made explicit in the programme rationale, and the entry criteria indicated some programmes were open to other health care professionals, but the prerequisites for modules tended to state the need for prior completion of specific modules rather than any disciplinary background. However, the majority of cluster and specialist modules' content did seem specifically oriented to a nursing audience. The generic modules may have been more widely accessed by other professional groups, but this was not often stated, although the fact that they were intended for all students on the nursing and midwifery pathways was stated.

In one focus group, a participant identified that some physiotherapists had been sent to join a module focusing on the care of a patient with neurological deficits. They were alerted to the fact that the content had a specific nursing focus, but their Trust had still seconded them. The participants left after the first session, identifying that they did not feel the programme suited their needs (Focus Group: 4 3.10.1998).

The extent to which shared learning and interdisciplinary learning was made a reality, and its impact upon students' learning outcomes, requires further research.

6.7 Theoretical assessments

Most institutions had a standardised word limit for each theoretical assessment per module; this gave rise to great variation in the number and amount of assessments across institutions. Table 6.5 illustrates the polar extremes of these fluctuations. The first entry identifies the lowest number of assignments and wordage, the second entry identifies the highest by that category. Although one cannot judge the rigour of assessment by word count, it does demonstrate inconsistencies in demands placed upon students for the same number of credits. These inconsistencies stemmed primarily from the number of modules making up the award, and thereby the number of assessments the student had to submit according to the institution's module 'formula'; and the chosen approach to practice assessment (see Section 6.8).

	Level 2			Level 3		
Category & [code]	Assignmts	Wordage	Credits	Assignmts	Wordage	Credits
A [2 P]	3	6,000	90 @ 2			
A [2 P]	10	20,050	90 @ 2			
B [2 F]	6	14,000 + exam	Diploma			
B [2 F]	6	21,000	Diploma			
C [2/3 P]	4	8,000 + 2 exams	60 @ 2	4	8,000 + 2 exams	60 @ 3
C [2/3 P]	10	21,750	90 @ 2	10	17,500 + exam	90 @ 3
D [2/3 F]	6	15,500 + 2 exams	Dip HE	7	18,500 + 2 exams	Hons degree
D [2/3 F]	6	18,500	Dip HE	5	16,000 + dissertation	Hons degree
E [3 P]				3	7,500	80 @ 3
E [3 P]				4	17,000	75 @ 3
F [3 F]				6	21,500	Hons degree
F [3 F]				8	24,000 + exam	Hons degree

Table 6.5: Theoretical assessment: highest and lowest assessment demand within each category

Table 6.6 demonstrates the type of theoretical assessment undertaken at different institutions, taking one programme as the template to give a general indication of the preferred method. Essays were the most common type, closely followed by care studies or critical incident analysis. All assessments had the rider that they should include research evidence, be linked to practice and have some form of critique.

BEST COPY AVAILABLE

Type of assessment	Frequency	Type of assessment	Frequency
Essay	30	Learning pack/resource	2
Care study (evaluative, research based, critical)	30	Writing a report	2
		Comparison of research papers	2
Critical incident analysis	15	Research proposal	2
		Viva	2
Research critique	10		
		Annotated articles	1
Unseen exam	8	Assessed presentation	1
Literature review	7	Exam: multiple choice	1
Teaching session	4	Programme work	1
Seen exam	4	Integrative study	1
Seminar with supporting paper	3	Practice critique	1
		Reflective journal	1
		Care plan	1
		Reflective diary	1
		Dissertation	1

Table 6.6: Types of theoretical assessments (incidence across institutions)

6.8 Practice assessment

The way in which practice was assessed and the specificity of learning outcomes from practice varied considerably by institution. However, one clear difference was between practice outcomes pre-determined by curriculum developers and outcomes defined by the student. From each of these 'types' there were sub-branches of difference which illustrates the diversity of approaches to both the generation of the learning outcome and the methods used to gauge performance.

6.8.1 Pre-determined outcomes

Pre-determined outcomes could be divided into two subgroups: those entitled 'competency/skills statements' and others called 'clinical learning outcomes'. It was difficult to see the difference between the two as one institution might call practice outcomes 'competency statements' when they appeared more like clinical learning outcomes to the research team (Example A) and *vice versa* (Example B):

Example A

> *'Index of competencies: ... Provides care which applies specialist knowledge and skills to meet specific patient needs*
>
> *Selects appropriate strategies for the delivery, management and evaluation of patient care ...'* (1: [296], 183/199)

Example B

> *'Learning outcomes ... On completion of this module the student will be able to:*
>
> - *demonstrate an ability to maintain patients airway using oral and tracheal airway adjuncts*

BEST COPY AVAILABLE

- *demonstrate a systematic process for the assessment of respiratory function using clinical skills and laboratory tests ...*
- *identify common modes of ventilation including: CMV; SIMV; volume controlled ventilation; pressure support.'* (12: [2%], 100)

Therefore it was decided to follow the lead of the institution and examine the practice outcome statements by the curriculum definition. A total of 22 programmes called their practice outcomes competency skills statements: 14 at Level 2; four at Level 3; and four at Level 2/3. Of these, 10 programmes listed clinical skills as performance criteria (Example C), while 12 listed the application of cognitive skills as performance criteria (Example D).

Example C

'Demonstrate effective skills in assessment and support of cardiac function:

a) record a 12-lead ECG

b) identify and differentiate between normal and abnormal cardiac rhythms

c) recognise life-threatening dysrythmias and initiate appropriate intervention

c) demonstrate the procedure for advanced cardiopulmonary resuscitation.' (10: [2%], 100/124)

Example D

'Specialist Clinical Skills

Assess and manage clinical interventions and critically evaluate their effectiveness in response to analysis of fluctuating needs of the patient:

Skill statement

- *Critically examines care delivery and makes appropriate changes in responses to fluctuating patient needs*
- *Utilises research skills to critically appraise the effectiveness of their proactive practice*
- *Utilises a reflective approach within the clinical setting. Applies specialist knowledge in response to data interpretation and initiates specific interventions accordingly.'* (3: [3F], 199)

Fifty-three programmes called their practice learning outcomes 'clinical learning outcomes'. To add to the confusion 20 had performance criteria (Example E) but the majority, 33 did not (Example F). Of the programmes with clinical learning outcomes and performance criteria, 12 were pegged at Level 2, and eight at Level 2/3. Of the programmes which framed the practice outcomes as clinical learning outcomes without performance criteria, 13 were pegged at Level 2, 11 at 2/3, and nine at Level 3.

Example E

'Outcome:

Demonstrates ability to safely care for a patient requiring mechanical ventilation

Performance criteria:

- *articulates how artificial ventilation differs from normal respiration*

BEST COPY AVAILABLE

- *appropriately prepares equipment and environment*
- *assess plan and deliver care for a patient requiring mechanical ventilation*
- *identifies, anticipates and manages complication of ventilation.' [etc.]*
  (6: [2%], 100)

Example F

'Outcome:

Demonstrates competency in the management of the resuscitation of a cardiac arrest victim using Advanced Cardiac Life Support (ACLS) protocols.

'Discharge or transfer patients effectively advising on the promotion of health and prevention of illness/ injury.' (16: [2F], 199)

6.8.2 Gauging of performance levels

The pre-determined outcomes were seen to be assessed in two ways:

- a simple achieved/not achieved summation; 33 programmes used this approach, 14 at Level 2; 12 at Level 2/3; and 7 at Level 3
- a framework to gauge progression (38 programmes; Table 6.7).

Framework	Programmes at Level 2	at Level 2/3	at Level 3	Total (n = 38)
Steinaker and Bell	14	0	1	15
Benner	6	6	1	13
Eclectic frameworks	1	5	0	6
Developed locally	0	0	4	4

Table 6.7: Frameworks used to gauge progression

The frameworks for levels was therefore not dependent on provision of the programme at Level 2, Level 3 or Level 2/3. However, the Steinaker and Bell framework (1979) was more likely to be used in practice assessment documentation for programmes leading to a diploma. All programmes using the Steinaker and Bell framework required the direct observation of practice performance and the assessor to either tick that competence was achieved or add comments. However, some also required students to provide additional material as part of their practice assessment. Methods included:

- learning contracts
- portfolio of evidence
- action plans
- a variety of sources of evidence other than 1-3 e.g. seminar
- reflective journals.

6.8.3 Student-defined outcomes

Students were left to define their own outcomes in 34 programmes. There were four sources on which they could base these outcomes: module outcomes and identified topic areas

BEST COPY AVAILABLE

(Example G); module outcomes and patient types (Example H); a framework to generate outcomes (Example I); and their own practical experience.

Example G

> *'Categories for learning outcomes:*
>
> *equipment (anaesthetic machine; ventilators; monitoring equipment; airway management; monitoring equipment etc.)*
>
> *infection control (preparation of personnel/ patient/ environment; principles of asepsis etc.)*
>
> *environmental management (air re-circulation systems; passive active scavenging systems etc.) ...'* (22: [2%], 176)

Example H

> *'Personal learning experiences*
>
> - *caring for the ventilated patient*
> - *caring for a patient requiring resuscitation*
> - *caring for a patient receiving nutritional support*
> - *supporting a patient's family and friends ...'* (15: [2/3%], 100)

Example I

> *'The student has three themes from which they identify and analyse one practice learning outcome. The themes are: biological, behavioural and sociological skills applied to nursing and midwifery practice; communication and interpersonal skills; leadership, management and teaching skills. They are also provided with: descriptors from an operational context; cognitive descriptors; other transferable skill descriptors, each with sub sets of performance from which the student picks one from the operational context, one from the cognitive descriptor and two from the transferable skills descriptors. The action plan will demonstrate how the Level 3 descriptors will be applied to the implementation of the practice outcome.'*
>
> (1: [3%], 124 based on the HE Credit Initiative Wales (1996)

The final group of outcomes are based on students' own practice experience. This was isolated to one institution running the programme at Level 2. Assessors identified whether students had achieved these learning outcomes on a Yes/No basis; students provided evidence of their learning through learning contracts and reflective diaries, the content of which was verified by the assessor.

Other ways by which student-determined outcomes were assessed was either on a Yes/No summation or with a level of performance as for pre-determined outcomes. The distribution of those programmes is identified below:

- from module outcomes, Yes/No (10 at Level 2)
- framework to generate learning outcomes, Yes/No (three at Level 2)
- framework to generate learning outcomes, self-assessed and verified by practice supervisor (four at Level 3)
- framework to generate outcomes with levels of performance also determined by

BEST COPY AVAILABLE

framework (four at Level 2/3 – HE Credit Initiative Wales; nine using Benner: four at Level 2; five where one module is at Level 2 and the second is offered as an option at Level 2/3).

Once again there is no clear differentiation by programme or level as to whether students defined their practice learning outcomes or they were pre-determined. Furthermore, the approach to providing evidence to support practice outcomes was similar in both approaches (although tick-box summation and/or comments alone were not evident in the student defined outcome approach).

Therefore, no clear patterns emerged to identify trends towards any method of assessment. The only trend that could be suggested was that, where outcomes were pre-determined in the style of competency/skills statements, it was more likely that these would be signed off by the assessor once students had demonstrated competence (i.e. their performance was observed). Students did not have to provide additional evidence to support the achievement of competence. All other forms of assessment required supporting evidence which may or may not have had to have been verified by the mentor/preceptor. This required students to write about their experiences and their practice was, in part and in some cases solely, determined by their written account (which was verified by the assessor). This meant that some students on some programmes were self-defining learning outcomes, submitting written evidence to support the way in which they had met those outcomes, and at no stage was their competence to practice directly observed as part of the assessment. This was more likely in a Level 3 programme. The methods used to collate this information across all the programmes are listed below:

- learning contracts (75 programmes)
- portfolio of evidence (46 programmes)
- a variety of sources (e.g. seminar) (13 programmes)
- comments by preceptor (13 programmes)
- tick box (10 programmes)
- action plans (9 programmes)
- reflective journals (7 programmes).

6.9 The ENB 415 programme

The ENB 415 Paediatric Intensive Care Nursing programmes have been used as an example to illustrate the exploration of the major themes identified above. All 415 programmes were offered at Level 2, one was configured as a full diploma. Like the other sampled Board clinical programmes the ratio of core generic, core specialist and cluster specialist components varied considerably, e.g. the cluster modules ranged from 25-100% of the programme and only one institution offered shared core specialist modules (with other Board critical care programmes) and in this institution the shared content was optional. The application of core generic and core specialist learning to the clinical specialty was done through applied theoretical and practice-based assessments.

6.9.1 Programme outcomes

The stated outcomes for each programme (and modules within the programme) were explored in some detail as these set out the programme/module's aims. The number and level of specificity in outcomes varied considerably: one programme had no stated programme outcomes and few module outcomes: another gave very detailed specific outcomes; another

linked outcomes to the ENB Higher Award, identifying which of the 10 Key Characteristics were achievable within that module.

In order to explore the academic endeavour required, the wording of each outcome was examined. Again, considerable variation was evident in the range and type of descriptors used across programmes. Some stated that students should: *'critically analyse/assess/evaluate'*; others used phrases that would, in the light of Bloom's (1956) taxonomy, require lower academic challenge e.g. *'state/describe/examine'*. It is important to acknowledge that the process of writing outcomes may not be based on educational theory (such as Bloom's taxonomy), but rather the university's module format. It may not, therefore, allow differentiation between the academic requirements for completing the module, and may leave little margin for variation.

6.9.2 Theoretical assessment

The number of assignments taken by students varied from two assignments (total wordage 4,000) to six assignments and two unseen exams (total wordage 8,000-10,000 plus exams). Both these programmes led to credits which fell short of a full diploma. The ENB 415 programme configured to a full diploma required five assignments plus an exam (total 14,000 wordage plus exam).

6.9.3 Assessment of practice

For each programme assessment of practice was structured using a learning contract; some also required a portfolio of evidence. Three key approaches to practice assessment (for the 415) were identified: student-defined practice outcomes; locally-determined assessment criteria; and nationally determined criteria (e.g. UKCC specialist practice outcomes) against which students' performance was gauged.

The next chapter examines a sample of programmes from each theoretical category to further examine the notion of comparability in the critical care programmes.

CHAPTER 7

DETAILED ANALYSIS OF A SAMPLE OF PROGRAMMES

Key points

- Two programmes from each 'theoretical type' were selected to identify commonalities and differences in learning outcomes to ascertain what was specific to the Board's numbered clinical programme and common to all critical care programmes.
- Some learning outcomes were written in a broad abstract style and were few in number, others in greater detail. No clear pattern emerged to determine that the specificity of outcome was linked to an academic level or type of programme.
- Topics were extracted from each of the learning outcomes and tabulated to display the frequency each topic was addressed by specialist programme. Topics were grouped into categories and then into themes which were verified by the clinical consultants. This revealed that only four themes were evident in all the programmes: approaches to care; aspects of care; wider aspects of the professional role; and physiology. Research and management themes were evident in all but two paediatric programmes; and the personal development theme was covered in all but one theatre programme and two paediatric programmes.
- Only six out of 37 sampled adult critical care programmes made explicit reference to paediatric care in the specialty.
- There was no evidence in the comparative taxonomy of learning outcomes, the assessment of theory, or the assessment of practice, that clearly identified a common standard for either Level 2 or Level 3 work across the programmes.

7.1 Introduction

Following the Stage 1 analysis the research team selected the portfolio of two institutions' critical care programmes from each one of the main categories A-E for detailed analysis (Table 7.1).

Category	Institution	ENB 100	ENB 124	ENB 176	ENB 183	ENB 199	ENB 415
A – 2 P	5	✓	✓		✓	✓	
	6	✓	✓		✓	✓	
B – 2 F	16	✓	✓	✓		✓	✓
	21	✓	✓	✓	✓	✓	
C – 2/3 P	1	✓	✓		✓	✓	
	15	✓	✓		✓	✓	
D – 2/3 F	14	✓	✓				
	25	✓	✓			✓	
E – 3 P	2	✓	✓		✓	✓	
	8	✓	✓		✓	✓	
Total		10	10	2	7	9	1 + 5

Table 7.1: The sample of programmes for detailed analysis

BEST COPY AVAILABLE

Category F has not been included in the table as only one institution offered all its Board programmes configured to a full degree only and therefore the category could not be saturated. However, the learning outcomes for a programme configured to a full degree were covered by including institutions offering programmes at either Level 2 or 3 (Category D). Level 3 outcomes could also be reviewed through the analysis of programmes which led to part of a degree (Category C).

Six out of the eight ENB 415 programmes in the sample were included for detailed analysis. Only one programme sat in category B (leading to a full diploma); the remaining five came from Category A (ENB award 60-90 credits at Level 2). The key questions guiding the detailed analysis were:

1. What learning outcomes were common to all programmes (across the portfolio of critical care programmes offered by one institution)?
2. What learning outcomes were common to all programmes (across the sampled specialty)?
3. What learning outcomes were different (across the portfolio of critical care programmes offered by one institution)?
4. What learning outcomes were different (across the sampled specialty)?
5. What factors might account for those differences?
6. In what way did the learning outcomes set at Level 2 differ to those at Level 3?
7. What is core to a Board clinical programme whether or not it is separate or integral to a full diploma/degree?

This process proved more complex than anticipated, mainly because the style in which learning outcomes were written was so different across institutions. Two examples of 'similar' outcomes by topic are displayed, to illustrate the methodological problem..

Example 1

Learning outcomes

'This module enables the programme member to:

1. *apply the biological sciences to delivering informed, appropriate care to critically ill patients.'*

The indicative content was described as:

'... applied biological sciences in caring for the critically ill patient.'

(Intensive Care and Applied Sciences – 15: 100 (30 CAT credits at 2/3)

Example 2

Learning outcomes

'This module enables the programme member to:

1. *Refresh and update their knowledge on skeletal anatomy.*
2. *Consider the types, definition, mechanism of injury and critically analyse the management principles of a variety of fractures.*
3. *Evaluate the contribution of the multiprofessional team to the immediate management of major trauma.*

4. *Critically evaluate the role of the nurse in the initial management of major trauma.*
5. *Correctly use a variety of splints/immobilisation techniques and evaluate their appropriateness.*
6. *Identify the complications of a variety of trauma orthopaedic conditions, evaluate risk management strategies.*
7. *Identify and adhere to local and national protocols, policies and guidelines regarding trauma management.*
8. *Review, revise or develop clinical protocols and guidelines where appropriate.*
9. *Evaluate current evidence-based methods of treatment and their appropriateness in different situations.*
10. *Evaluate child-centred trauma care.*
11. *Promote development/innovation in immediate trauma and fracture care.'*

(Enhancing the immediate care of patients with musculoskeletal trauma 25: 199 (15 CAT credits at Level 3)

As can be seen by the above examples, the level of detail varied enormously. This is not to suggest that the material was addressed in any greater depth of specificity in either institution, but the authors were responding to their institution's house style. Although the amount of detail in each outcome varied, so did the detail identifying programme content. The way in which that outcome was to be achieved (student-led; or facilitated by the lecturer/ preceptor) went unstated.

Although different, key content areas could be identified within each outcome which could be extracted and displayed to illuminate difference and commonality across programmes. The issues and limitations of the approach are discussed in relation to the emergent data.

7.2 Process of drawing out categories

The modules making up each programme were extracted from the curriculum. All modules making up the different clinical programmes were then examined by specialty, and their learning outcomes were examined. Topic areas covered by the learning outcome were then listed and displayed on a table. Whenever a topic appeared it was loaded into the table which also indicated the institution of origin, thus demonstrating its incidence across institutions. An example of this process is illustrated for a small section of the data extraction process of the ENB 176 and ENB 183 programmes (Table 7.2).

Institution and ENB programme	2:183	8:183	16:176	21:176	21:183	1:183	5:183	6:183	15:183
Level	3	3	2	2	2	2/3	2	2	2/3
Management issues									
Management of theatre	✓		✓	✓	✓		✓		
Management of anaesthetic room					✓				
Multidisciplinary teamwork	✓	✓		✓	✓	✓		✓	
Co-ordinate MDT									✓
Communicate effectively with MDT									✓
Prioritise		✓	✓	✓	✓				
Provide approp. care environment	✓			✓	✓				
Life-threatening situations	✓		✓	✓	✓		✓		
Nursing roles	✓	✓	✓	✓	✓			✓	
Role of anaesthetist		✓							
Role of anaesthetic practitioner		✓	✓						
Role of circulating nurse			✓	✓	✓				
Role of recovery room nurse			✓		✓				
Role of scrub practitioner			✓	✓	✓				
Relationship between operating department and support services				✓	✓				
Relationship between recovery room and hospital	✓				✓				

Table 7.2: Sample of data extraction sheet (ENB 176/183)

As each programme and the modules that made it up were the subject of this review the table of topics expanded. This led to a large number of topics because some institutions gave great detail, while others referred to broader concepts in outcome statements. The final number of topics across the specialties per programme was:

- Adult ITU: 351
- Coronary care: 314
- A&E: 295
- Theatres and recovery: 220
- PICU: 95.

Each topic was then sorted into categories and the categories into themes. The two most expanded categories were management and physiology across all programmes. However, specific conclusions could not be drawn from this because while a category may have a large number of items this did not necessarily correlate to the emphasis placed upon the theme within the curriculum, nor the number of credits and at what level the module was pegged.

It was tempting to generate categories that reflected the 10 Key Characteristics in the Higher Award (ENB, 1991) or the learning outcomes of specialist practice (UKCC, 1994). However, as some programmes were expressly designed within these frameworks, while others sat outside them (within their own critical care pathway) it was considered more appropriate to let themes emerge from the data across all programmes in all sampled institutions; themes included:

- approaches to care

- aspects of care
- personal development
- wider aspects of the professional roles
- teaching and assessing
- research
- management
- physiology.

With the data so displayed, the frequency a topic was raised in a programme at any given institution was counted. The record of topics represents what is explicitly stated in learning outcomes to inform modules that make up the Board's clinical award. Mindful of the fact that some programmes were integrated into a full diploma and degree, while others were separate modules (they could be taken independently but would not lead to an award), there was still a considerable range of categories and topics. This was also influenced by the amount of shared learning across the programmes.

Some programmes emphasised one specific subject area, for example, counselling skills were identified as a learning outcome in two institutions, but addressed in great detail with 10 separate entries in another. Therefore, in the process of categorisation, the number of topics were conflated into the heading 'counselling skills' which were then sorted into themes, in this instance 'aspects of care'.

Section 7.3 illustrates the categories and themes across the programmes, with examples of topics within each category (comprehensive details are listed in the full report submitted to the Board). These categories and themes were generated from module learning outcomes; omissions do not necessarily mean a subject was not covered, but that it did not appear as an explicit learning outcome statement. Furthermore, this display does not include the content of practice learning outcomes. Tables 7.3 and 7.4 identify the type of module outcome statements and practice outcome statements in each of the curricula subject to detailed analysis. In the main, where module outcomes were written as broad concepts, practice outcomes tended to be more specific.

Institution	Theoretical outcomes	Practice outcomes
5 [2 P]	Broad concepts	Pre-determined, detailed
6 [2 P]	Specific and focused	Pre-determined, detailed
16 [2 F]	Broad concepts	Pre-determined, detailed
21 [2 F]	Broad concepts	Pre-determined CLOs
1-2 [P]	Broad concepts	Pre-determined, details
1-3 [P]	Broad concepts	Student-defined from framework
15 [2/3 P]	Broad concepts	Student-defined with levels to gauge performance
14 [2/3 F]	Specific and focused	Pre-determined, detailed
25 [2/3 F]	Specific and focused	Pre-determined, detailed
2 [3 P]	Broad concepts	Pre-determined CLOs
8 [3 P]	Broad concepts	Pre-determined CLOs

Table 7.3: Comparison of theoretical and practice outcomes (style)

BEST COPY AVAILABLE

Institution	Theoretical outcomes	Practice outcomes
4 [2 P]	Specific and focused	Student-defined based on experience
16 [2 F]	Broad concepts	Pre-determined detailed
17 [2 P]	Specific and focused	Student-defined from module outcomes
19 [2 P]	Specific and focused	Student-defined from module outcomes
23 [2 P]	Specific and focused	Pre-determined detailed
26 [2 P]	Broad concepts (detailed indicative)	Student defined from module outcomes

Table 7.4: Comparison of theoretical and practice outcomes (ENB 415)

7.3 The themes

7.3.1 Approaches to care

Examples of topics on 'approaches to care' (Table 7.5) included in each category:

Critical awareness for practice

- reflective practice
- application of theory for practice
- critical care: art or science?
- political and sociological influencing practice.

Quality issues

- standard setting, maintaining standards and evaluation
- policies/procedures
- quality assurance/audit.

Practice development

- future developments in specialty
- facilitate change in practice
- innovations in practice.

Individualised care

- nursing theories and models
- nursing process and diagnoses
- informed choice and advocacy
- patient autonomy/empowerment.

Although not all learning outcomes in each programme covered topics in the different categories, all referred to topics within the theme.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Critical awareness for practice	8	7	7	7	6
Quality issues	7	7	6	4	2
Practice development	6	3	4	5	2
Individualised care	9	10	7	9	6

Table 7.5: Categories in 'approaches to care'

7.3.2 Aspects of care

Examples of topics on 'aspects of care' (Table 7.6) included in each category:

Cultural aspects

- transcultural and ethnic issues
- cross-cultural perspectives
- spiritual aspects
- religious beliefs.

Psychosocial aspects

- needs of patient
- needs of carers
- needs of staff
- stress and anxiety management.

Environmental factors

- technology
- medicalisation
- iatrogenesis.

Care of specific client group

- specified client group e.g. critically ill/anaesthetised/dying patient
- deeper understanding of patient needs
- pre-, peri- and post-operative care (including post-op visiting)
- therapeutic interventions (including play)
- alternative complementary therapies.

Pharmacology

- drug administration.

Significant others

- family-centred care
- family needs.

Communication

- communication theories and skills
- interpersonal skills
- establishing good relationships with patients.

Counselling

- counselling skills
- modes of helping
- recognition of professional boundaries.

Rehabilitation

- rehabilitation process
- comparison of rehabilitation programmes
- risk stratification measures.

Health education

- health promotion and patient health education
- screening programmes.

Death

- withdrawal of life support
- brain stem death/organ donation
- bereavement care – grieving process.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Cultural aspects	7	5	5	5	1
Psychosocial aspects	10	9	5	6	5
Environmental factors	3	1	1	0	1
Care of specific client group	3	4	4	4	5
Pharmacology	2	3	3	0	2
Significant others	7	5	3	4	6
Communication	5	5	5	4	4
Counselling	1	6	3	2	0
Rehabilitation	1	10	0	0	1
Health education	5	8	3	7	3
Death	4	3	1	4	2

Table 7.6: Categories in 'aspects of care'

Although not all learning outcomes in each programme covered topics in the different categories, all referred to topics within the theme. All the coronary care programmes dealt with the concept of rehabilitation, but this was only mentioned explicitly in the learning outcomes of two other programmes (14:100 and 19:415).

BEST COPY AVAILABLE

All adult intensive care programmes specifically referred to psychosocial aspects. It may seem surprising that other programmes referred less explicitly to this theme; however, these programmes did include specific learning outcomes referring to holistic and individualised care. One can only assume that these issues were addressed through that specific outcome.

All paediatric programmes referred to the care of family and/or significant others. This was not necessarily the case for other programmes, with a notably low incidence in theatre and, A&E programmes; however, this material may have been covered under the heading 'psychosocial aspects', 'communication' or 'counselling skills'.

7.3.3 Personal development

Examples of topics on 'personal development' (Table 7.7) included in each category:

Academic ability

- scholarly skills (referencing; essay writing skills; storage and retrieval of information; presentation of information skills)
- use of library resources
- skills of reflection
- critical thinking
- decision-making skills etc.

Professional self

- recognition of own limitations
- facilitates own personal development
- professional self-awareness
- communications skills
- develop professional portfolio
- self-motivation
- assertiveness etc.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Academic ability	7	7	6	6	1
Professional self	9	8	7	8	4

Table 7.7: Categories in 'personal development'

The topics of personal development were covered in all but two paediatric and one theatre programme, all of which were separate Board's clinical programmes, two at Level 2 and one at Level 3. Many topics addressed in this theme were attached to learning outcomes addressing other issues, notably for research modules.

7.3.4 Wider aspects of the professional role in critical care

Examples of topics on 'wider aspects of the professional role in critical care' (Table 7.8) included in each category:

BEST COPY AVAILABLE

Professional aspects

- scope of professional practice
- principles of accountability and responsibility
- autonomous practice
- confidentiality.

Paediatric aspects of care

- needs of children and parents
- paediatric artificial ventilation
- assessment related to child development
- external agencies involved with child care
- child abuse/non-accidental injury
- needs of child with major illness/injury
- legislation related to care of the child
- advanced paediatric life support
- child-centred care.

Miscellaneous

- broader health needs
- Mental Health Act
- safe primary and secondary transportation of patient
- Patient's Charter.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Professional aspects	10	10	8	9	6
Paediatric aspects of care	2	0	1	3	6
Miscellaneous	3	1	1	4	0

Table 7.8: Categories in 'wider aspects of the professional role in critical care'

This section illuminated a fundamental issue relating to the amount of specific paediatric input in critical care programmes (other than ENB 415 programmes). Although it is not surprising that coronary care programmes did not address the topic (as this is a sub-specialty within paediatrics), it is surprising that only three A&E programmes had any learning outcomes directly related to children, especially as 25% of all A&E department attendees are children (Audit Commission, 1996).

7.3.5 Teaching and assessing

Examples of topics on 'teaching and assessing' (Table 7.9) included in each category:

- theories of learning and teaching
- appraisal of teaching methods
- learning styles
- curriculum development
- teaching resources
- principles of assessment
- effective facilitation
- legal and ethical issues of teaching, learning and supervision.

Educational practice (classroom)

- implement and evaluate teaching sessions
- plan teaching sessions
- educator role: staff.

Educational practice (for preceptor/mentor role)

- act as a clinical expert/role model
- facilitate personal development of staff
- enhancing the clinical learning environment
- mentorship/preceptorship
- application of reflection
- staff development strategies
- develop as a teacher and assessor
- educator role: patients and relatives
- identifying learning situations and learning needs etc.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Educational theory	7	7	6	6	2
Educational practice (classroom)	2	2	0	1	1
Educational practice (for preceptor/mentor role)	8	8	7	7	3

Table 7.9: Categories in 'teaching and assessing'

Teaching and assessing was invariably addressed through generic modules. Therefore, specific learning outcomes relating to this theme were not generally evident in programmes which formed category A (and only appeared in three paediatric programmes. The Board's programme Teaching and Assessing in Practice (ENB 998) is popular and is frequently cited as a pre-requisite for practitioners who wish to assume E-grade staffing posts. Therefore, it is perhaps surprising that the topic area is addressed throughout other programmes with such regularity, although students were given the opportunity to offset modules relating to teaching

BEST COPY AVAILABLE

and assessing through advanced standing or APL processes. These differences signal one way the programmes seek to meet a variety of practitioner needs and accommodate students with diverse prior clinical and educational experience.

7.3.6 Research

Examples of topics on 'research' (Table 7.10) included in each category:

Research theory

- philosophical underpinning for research
- research critique
- ethical and legal principles of research
- validity and reliability issues.

Research process

- detailed literature review
- write research proposal
- critical literature review
- data analysis
- undertaking research.

Application of research to practice

- research-based care
- evidence-based practice
- clinical effectiveness.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Research theory	6	6	4	6	1
Research process	7	7	4	7	2
Application of research to practice	10	10	8	9	4

Table 7.10: Categories in 'research'

Research input could be conceptualised in two ways: the delivery of research modules which were fundamentally research methods programmes; and learning outcomes that related the application of research findings to practice and therefore were tied into other learning outcomes.

All but one institution in the detailed sample covered the topic of research, bar one paediatric programme. Research was frequently core to the programme but offered as a common core module shared by students on different programmes. In one case, research and management were offered as distance learning packages to *'increase flexibility'* and assist the large number of students who were: *'required to undertake the unit'* (Focus Group 4, 3.10.1998).

7.3.7 Management

Examples of topics on 'management' (Table 7.11) included in each category:

BEST COPY AVAILABLE

Management and leadership theories

- managing human resources
- organisational strategies/issues
- current issues in management
- change theories/management/agents leadership.

History of critical care provision

- history of acute and critical care
- dimensions of acute and critical care
- technological advances in care.

Resource allocation/management

- introduction to budget management
- provision of services
- contracting issues.

Running the unit

- management and supervision: clinical practice and clinical environment
- retrieval/transfer
- record-keeping and sharing information
- prioritising.

Teams and groups

- group roles and processes
- multidisciplinary team work
- team leadership and team building.

Managing specific situations

- major accident/incident
- management of violence and aggression
- triage and documentation.

Category	ENB 100 (n = 10)	ENB 124 (n = 10)	ENB 176/183 (n = 9)	ENB 199 (n = 9)	ENB 415 (n = 6)
Management and leadership theories	6	6	5	7	1
History of critical care provision	1	1	1	2	3
Resource allocation/management	6	6	3	9	0
Running the unit/department	7	7	7	8	5
Teams and groups	8	10	6	7	6
Managing specific situations	7	7	5	6	2

Table 7.11: Categories in 'management'

89

Once again management tended to be a core generic module shared with other students; it included many topic items, second only to the number stated under the umbrella of 'physiology'. Only two paediatric programmes did not have any learning outcomes within the topics in the theme. The management theme included topics related to multidisciplinary teamwork. In some programmes, this was not stated as a learning outcome, although in others in the same institution it was. For example, two institutions did not explicitly refer to multidisciplinary teamwork in the theatres programmes but did in the coronary care programmes.

7.3.8 Physiological aspects

A total of 55 categories were identified within the theme of 'physiological aspects'; the full list is available from the research team. In some programmes physiological aspects were referred to in one abstract statement, others presented great detail. However, all mentioned biological science or a derivative of the term in their learning outcomes. There was no obvious pattern as to the level of detail provided for this theme, for example, some Level 3 programmes included detail, whereas others tended to write more abstract outcomes. The same was true for Level 2 programmes. For example:

> *'Competently assess the anaesthetic and recovery nursing needs of patients with existing and intervention related problems ...'*
>
> *'... provide competent care for patients with needs related to existing and intervention related problems.'*

Both these learning outcomes imply the use of biological science to ensure the student was competent to practice, and this was reinforced by the indicative content:

> *'... assisted ventilation; CPR; invasive monitoring; pharmacology; drug administration; IV fluid replacement; thermoregulation; pre-existing health problems and anaesthesia; complications during anaesthesia and recovery pain assessment and management; professional, legal and ethical issues.'* (6: 183 [2%])

Although aware of the different styles of module outcome statements, some interesting topics are notable by their absence from some programmes, such as resuscitation, wound management, nutrition and gaseous exchange. This material may have been covered in practice outcome statements, or in classroom delivery, but in general, there seemed to be a general drift towards writing fewer specific learning outcomes related to physiological aspects of care. This may have been due to house style, or may be because students are coming onto the programme with experience of the specialty and this has influenced the curricula's emphasis on different topics (iterative process; telephone interviews with lecturers; focus groups).

However, this alerted the research team to the concern expressed in a focus group with clinical managers that students were not acquiring basic knowledge and skills for critical care practice (Focus Group 3, 31.7.1998). If such a judgement was to be made by examining the learning outcomes of any programme in isolation, one can readily see how such an assumption could be reached. The influence of the emphasis on subject matter within a programme on the acquisition of competencies and skills through different programmes requires further research.

In summary, the following themes were common to all programmes in the detailed sample:

- approaches to care
- aspects of care
- wider aspects of the professional role

BEST COPY AVAILABLE

- physiology.

The majority of programmes addressed the following themes:

- personal development (bar one theatre programme; and two paediatric programmes)
- research (bar one paediatric programme)
- management (bar two paediatric programmes).

Teaching and assessing was not addressed by two institutions whose programmes led to 60-90 Level 2 credits. Three paediatric programmes did not have any learning outcomes related to this theme.

Common categories across the specialties:

- only the category of professional issues was found in all critical care programmes
- psychosocial aspects were covered in all ITU programmes
- rehabilitation and multidisciplinary teamwork were covered in all coronary care programmes
- care of significant others was covered in all paediatric programmes
- resource allocation and resource management were covered in all A&E programmes
- apart from professional issues no categories were common to all theatre and recovery nursing programmes
- only two adult ITU, one theatre and recovery and three A&E programmes made specific reference to paediatric issues or care of the child in those settings.

The content of learning outcomes directly related to physiology varied across the programmes. No pattern emerged that indicated physiology was more likely to be addressed in detail on a Level 2 or a Level 3 programme.

7.4 Theoretical assessment

As Trowler (1996), Gregg (1996), Warner (1996) and McDowell (1996) indicated, students take their cue from assessment to identify what is emphasised within a programme. Therefore, the research team examined the variety of assessment strategies used in each programme by specialty to see if this illuminated any emphasis on one aspect of learning.

All assessments were focused upon aspects of practice. The most commonly-used tools of assessment across the programmes and specialties were critical incidence analysis, care study and essays. However, research critiques were a predominant assessment in Level 2 programmes. Examinations were less likely in ENB 176/183 than other programmes, be they at Level 2 or 3, although ENB 124 programmes (set at Level 2) were more likely to have some form of exam than other programmes. Where programmes were offered at either level, assessment differed either in the nature of the question or the marking criteria. The word limit to assessment at Level 3 was in some instances increased, but this was not necessarily the case.

Of interest was the variety of tools used to transmit practice learning outcomes into a medium that could be theoretically assessed and assigned a grade. Invariably these tools required students to apply critical analytical and reflective skills to evaluate their learning from practice. Reflective diaries/journals, transcripts of experience, the collation of information (e.g. research papers, care plans and other relevant information) were often used as the template upon which students had to undertake a critical incident analysis or critique of care. This evidence normally had to be verified by the clinical mentor/preceptor. Action plans and learning contracts were

BEST COPY AVAILABLE

often used in association with these other sources (sometimes in addition to the practice assessment tool, and sometimes this formed the practice assessment tool). When this material was gathered for submission, the pack was usually referred to as a 'portfolio of evidence'.

As the assessment tools were common to programmes independent of their level, the research team returned to the learning outcomes to identify if the language used indicated any difference in academic endeavour between Levels 2 and 3. From a total of 125 descriptor stems to each of the learning outcomes in the detailed sample, only 21 were only found in Level 2 outcomes (and usually isolated to one institution), and 18 only found in Level 3 outcomes. These are listed in Tables 7.12 and 7.13.

- appreciate
- be critically aware
- critically assess
- critically reflect
- effectively use
- enhance
- establish
- exercise accountability
- extend
- make recommendations
- present
- recall
- recognise the importance of
- record
- relate
- respond
- select
- set priorities
- summarise
- take informed decisions
- think critically

Table 7.12: Descriptors only identified at Level 2

- advise
- clinically direct
- conduct
- create
- define
- disseminate
- effectively make decisions
- ensure
- function effectively
- illustrate
- lead
- minimise
- obtain information
- outline
- respect
- revise
- supervise
- undertake

Table 7.13: Descriptors only identified at Level 3

Descriptors like 'critically analyse'; 'critically apply'; 'critically evaluate' were used interchangeably within Level 2 and Level 3 programmes. Indeed, where programmes offered a 2/3 option in a module the stem descriptors were still used interchangeably. Therefore, from the sample (subject to detailed analysis), there was no clear differentiation in the academic endeavour of students undertaking a Level 2 or Level 3 programme by the outcome descriptors.

The research team then turned to programmes' assessment criteria to identify whether this could illuminate the difference in academic rigour for the students on Level 2 and Level 3 programmes. Two examples of assessment criteria are displayed to identify the basic pass and excellent pass of theoretical work marked for diploma or degree credits. The criteria illustrate a rather opaque distinction between the two levels and when compared across institutions does

BEST COPY AVAILABLE

not clarify the intellectual demand of Level 2 or Level 3 work. Therefore, one can not draw any clear analytical conclusions as to how diploma and degree work are differentiated across all the programmes.

Example 1 Assessment criteria

Diploma level pass criteria:

- *'references and bibliography accurately cited*
- *relevant theory utilised*
- *evidence of analysis of practice and ethical issues*
- *safe and relevant practice described*
- *coherently structured and presented piece of work*
- *evidence of empathic understanding of client and colleagues issues*
- *complies with exam requirements.'*

Degree level pass criteria:

- *'able to focus on current issues and to argue contrasting perspectives*
- *explore potential solutions to practice-based issues*
- *evidence of a broad range of underpinning and relevant theory*
- *references and bibliography accurately cited*
- *well structured and logical presentation*
- *complies with exam regulations.'*

Diploma level, excellent pass:

- *'tightly argued presentation and critical analysis*
- *identified and discusses relevant moral and ethical issues*
- *excellent relationship of research to practice*
- *evidence of independent thought on contemporary issues*
- *comprehensive and wide ranging knowledge base of relevant theory*
- *incorporates evidence of consistently safe and high standards of practice*
- *advocacy and sensitivity of client and colleagues demonstrated.'*

Degree level, excellent pass:

- *'recognises the possibilities and limitations of methodology and theory*
- *extremely well constructed and logically presented argument. Sound ethical and moral reasoning demonstrated.'*
- *'able to select and apply specific theories to complex situations*
- *excellent comprehension of contemporary issues*
- *excellent relationship of recent research and practice*
- *incorporates evidence of consistently safe standards of practice*
- *assertive advocacy for clients and colleagues demonstrated.'*

BEST COPY AVAILABLE

Diploma level pass criteria

'Some limited evidence of critical analysis, but, overall, there is a tendency to be descriptive and to use stock arguments. Demonstrates appropriate reading and a reasonable knowledge and understanding of the issues involved and their application to practice. Structure adequate: scope for improvement.'

Degree level pass criteria

'Demonstrates some knowledge and understanding of the issues involved and an ability to think critically despite some difficulties in balancing and substantiating the arguments. Some limited evidence of reading and inter-relationship between theoretical concepts and practice. Organisation sufficient to support the level of study, but structure and references limited'.

Diploma level: excellent pass

'Shows a sound ability to inter-relate concepts. Is able to relate theory to practice. Makes points clearly and concisely and uses appropriate references. Some evidence of independent thought'.

Degree level: excellent pass

'Demonstrates an exceptional ability to evaluate critically using a wide range of appropriate criteria. Synthesises concepts and interrelates theories and practice. Work shows clear evidence of independent thought and or originality'.

Assessment Grid for Post-registration Studies in Nursing and Midwifery [15]

7.5 Differentiating practice outcomes by level

In one programme, although a framework for defining levels of performance was proposed (based on the Dreyfus Model of Skill Acquisition), students undertaking Level 2 or 3 practice outcomes did not have their practice differentiated. It was considered important that competence in practice was independent of theoretical pegging of the programme. A portfolio of evidence, including critical incident analysis was submitted demonstrating students' personal learning experiences in practice. This written work was then the subject of the above marking criteria. Therefore, in this institution, no attempt was made to differentiate Level 2 and Level 3 practice although the intellectual abilities of students were differentiated at Level 2 and 3.

In another institution, two quite different tools of practice assessment were used to assess Level 2 and Level 3. At Level 2 students had pre-determined learning outcomes and had to demonstrate a level of competence using Steinaker and Bell's (1979) experiential taxonomy; at Level 3, they identified their own learning outcomes from a complex framework to formulate the outcome, gather evidence to demonstrate and support the learning that had taken place to fulfil that outcome and submit this in a portfolio of evidence. The portfolio was verified by the assessor, and lecturers assessed the work on the basis of students' analysis of the process of learning rather than any judgement about the outcome of learning. The above two examples present the diversity of approaches used in different institutions, which was as great as the number of curricula reviewed.

7.6 In summary

- Each institution had a different set of marking criteria, a different way of putting together learning outcomes, a different way of articulating the difference between Level 2 and Level 3 practice and theoretical outcomes.
- Each institution had a different number of modules making up the programme. The number of CAT credits awarded to any one module varied considerably.
- Language to define the academic endeavour expected of students was used interchangeably within institutions offering Level 2/3 options, as well as across institutions offering either Level 2 or Level 3 programmes.
- No clear pattern emerged as to what type of assessment tool was more likely to be used to assess students at either Level 2 or Level 3. Nor was there any clear pattern as to what type of assessment was more likely to be used in one programme by specialty than another. However, the type of tools of assessment and the type of language used to describe outcomes was consistent by institution. This led the research team to conclude that: the way in which the level of the programme was articulated; the emphasis on certain aspects of practice, knowledge and skills evident in the curriculum; and the emphasis on certain theoretical issues, were locally determined.

Key points

- The telephone survey was conducted in November-December 1998. The sample size was 102 and there was an 80% response rate. Respondents represented a broad geographical spread and specialty units.
- The majority of clinical managers (68%) were satisfied with the competencies and skills of nurses who had undertaken the local Board numbered clinical programme, but the response was influenced by their perception of whether the programme was to prime practitioners for practice or consolidate past experience in the specialty. However, 47% of the managers felt that raising the academic level of the programme had adversely influenced the range of competencies and skills students could acquire on it.
- The majority of clinical managers (70%) felt they could influence the design and content of the programme, although some stated that their influence was limited.
- Only 31% of clinical managers stated that they would prefer the programme to be set at degree level. The majority (73%) stated that students had given them feedback that they preferred the programme to be fully configured into a diploma or degree.

8.1 Introduction

The aim of the telephone survey was to identify to what extent the issues raised by lecturers in the telephone interview and focus groups, and by the curriculum analysis, were perceived by the managers of critical care environments.

Originally it was proposed to contact managers of environments associated with the institutions whose curricula had been the subject of detailed analysis. The aim was to identify:

- local factors influencing the focus on specific topics included in the programme
- how the programmes enabled practitioners to display competence (fit for purpose, fit for practice)
- how preceptors were able to facilitate students' learning on the various critical care programmes.

In response to the emergent data, it was decided to broaden the scope of the survey to accommodate questions about:

- overall satisfaction with the range of skills and competencies that practitioners possessed after the programme
- whether managers preferred to employ graduates or diplomates of critical care programmes
- whether or not they wanted to purchase the Board's clinical programme separately or integrated within a diploma or degree pathway
- managers' perceptions of student need and the impact of student support and assessment on their units.

It was decided to survey one manager from each specialty, per institution for whom the research team had programme documentation (105); three local managers were involved in

BEST COPY AVAILABLE

the pilot study and therefore the final sample size was reduced to 102. The survey was conducted over a two-week period between November 23 and December 4 1998. This chapter summarises the results of the telephone survey; full details appear in the report submitted to the Board.

8.2 Process

The units and hospitals with whom the institutions linked were identified in some curricula, and the telephone interview with lecturers included a question to identify the localities where students worked while on the programmes. Some manager's names were given by lecturers (who had asked the permission of the manager), others were gathered from the *1996 Directory of Special Care Units.*

Managers were written to in advance of the telephone survey; the letter outlined the purpose of the survey and requested their participation. On calling managers, the researchers identified themselves and their educational institution and outlined the purpose of the Board-commissioned research. They were then asked if it was convenient to conduct the survey to identify a time to call back. Managers were offered a faxed copy of the survey to have while the questions were being asked or could return their responses by fax if this was more convenient; 26 faxes were sent and 16 were returned (although one was after the deadline and the information was not loaded). In general, faxed responses tended to be less detailed than those completed by telephone.

The survey was piloted on participants of one of the focus groups (n = 9) and with three local managers in different specialties, after which questions were revised and some phrasing altered.

After ascertaining the name, job title and range of units for which the manager had responsibility, 20 statements were posed, and the managers were asked to say whether they agreed, disagreed or neither agreed nor disagreed with each. The statements were framed in the positive and negative, and two included open-ended questions. These strategies were used to encourage the managers to add commentary.

8.3 Results

In total 81 managers took part in the survey:

- general intensive care units (GITU): 19
- coronary care units (CCU): 19
- accident and emergency units (A&E): 21
- operating departments (theatres): 16
- paediatric intensive care units (PICU): 6.

Ten managers who originally agreed to complete the survey by fax did not return the form within the deadline, and six managers were unobtainable within the survey timescale. This gave an overall response rate of 80%.

Data were loaded into EXCEL and comments were logged separately. Data were cross tabulated to give the response rate overall and by specialty. Responses are discussed under headings exploring the key themes and issues emergent from the data, and include quotes to set the findings in context. Finally, the key issues are explored in relation to findings from other phases of the study.

BEST COPY AVAILABLE

Over two-thirds of the clinical managers (68%) were satisfied with the competencies and skills of nurses who had undertaken local Board clinical programmes, while 21% were not. Eleven per cent neither agreed nor disagreed; many of these managers identified that competencies and skills were not acquired as a result of the programme, rather that potential students had to demonstrate their competence before being sent on the programme:

> *'I am satisfied with the competencies of staff but this does not necessarily come from the course, which is not specific enough to theatres. It has become too generic and lacks the competency focus of the old programme.'* (M15: 183)

> *'Staff are experienced before they do the course they do not necessarily get the core competencies from the course structure. The outcomes are too broad and not specific enough. They have been hijacked by the academic institution in favour of academic accreditation and the local issues and competencies have become a secondary consideration.'* (M25: 100)

Three managers identified that they had considered placing students on other programmes because they were dissatisfied with the local programmes, but only one was unable to resolve the issue with the local educational institution and sent students to another:

> *'Recently ward managers, students and tutors had a meeting because they were concerned that the course had moved too far away from the practical and was becoming too academic. This has resulted in the college re-looking at the course and coming up with some competency based outcomes for the next course.'* (M19: 124)

Managers' satisfaction with the competencies and skills of nurses who had undertaken the Board's clinical programmes locally are illustrated by specialty in Figure 8.1.

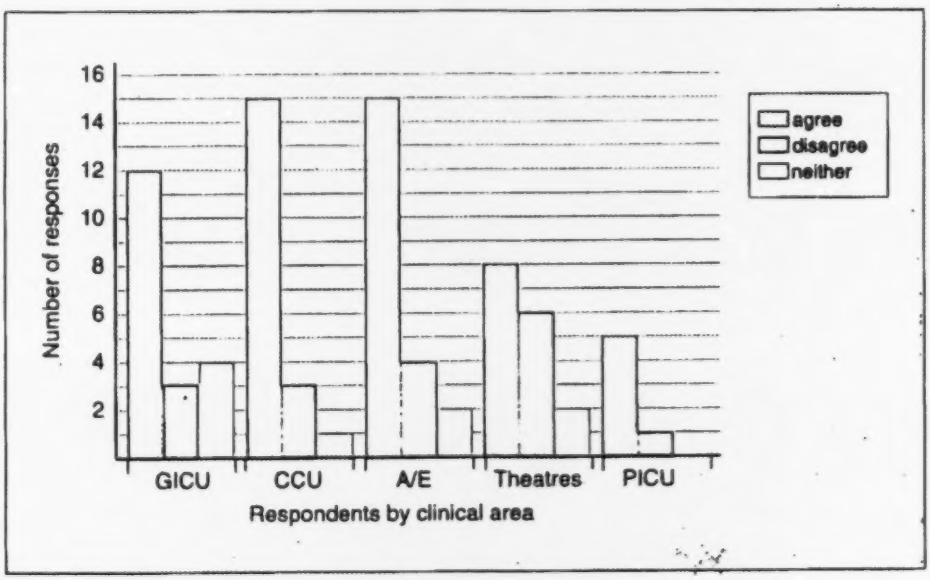


Figure 8.1: Managers' satisfaction with the competencies and skills of nurses who have undertaken the local ENB programmes

More theatre managers expressed dissatisfaction with the programmes than others. There was no correlation between the dissatisfaction expressed by one specialty manager to that expressed by other managers linked with the same institution. However, of 17 respondents who expressed dissatisfaction with the competencies and skills of nurses who had undertaken the programme, 13 had completed programmes which led to 60-90 Level 2 credits; two had dual outcome credits and two offered Level 3 credits. However, 55 managers (22 of whom had staff who had undertaken a programme leading to 60-90 Level 2 credits) were satisfied with their competencies and skills. When these data were compared to an explicit statement about whether the rising academic level influenced the range of competencies and skills students could acquire, 47% felt that it did, but 47% disagreed (Figure 8.2).

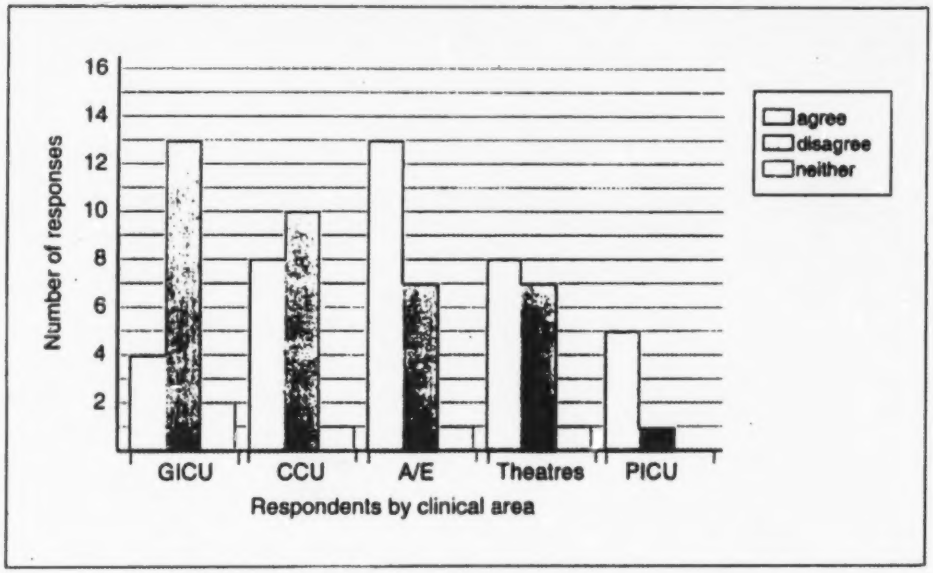


Figure 8.2: Managers' perception that raising the academic level of the ENB programme has adversely affected the range of clinical competencies the students can acquire

A key issue seemed to be about expectations: some managers expected the programme to prime students with competencies and skills; others expected it to consolidate skills acquired through experience in the specialty. Indeed, some managers considered it inappropriate for students to deal with competency and skill as part of the programme as they were already experienced in the specialty:

> *'The expectations of the students has changed, as people with more experience go onto the course, they expect to come out as experts in ITU nursing, but they only come out as competent ITU nurses. The D grades get more out of it than the experienced people.'* (M15: 100)

> *'The relevance of course content depends upon the students' previous experience of A&E. When they have a lot of experience their expectations are not met, at the same time they are not really getting the basic competencies and skills although they do the ALS.'* (M17: 199)

As one manager indicated, programmes must cater for both levels of practitioners and this, she believed, had created the problem:

> *'The problem is the wide range of students on the course. One year there was someone with two years' experience next to a G grade with several*

years of CCU and ITU experience; it puts the onus on the assessor.' (M14: 124)

Managers were asked if they had received feedback from students that the Board's clinical programmes had not adequately prepared them for practice: 46% had, and 40% had not; 14% had not received feedback, or had received a mixed response. Their response was influenced by the amount of prior experience the student had in the specialty before undertaking the programme. More managers in coronary care, A&E and theatres had feedback that the programme did not adequately prepare students for practice, while general ITU and PICU managers were more likely to identify that the programme did prepare students for practice:

'This depends upon why you are sending someone on the course, is it to prepare them for practice or to consolidate their experience and expand their knowledge to implement change.' (M22: 100)

'The course does not provide the student with good theatre skills, therefore, you do not get a useful theatre nurse at the end of the programme.' (M19: 176)

'People do the NVQ Level 3 course before they do the ENB 176 because the course [ENB 176] does not address the basic competencies ... and prepare people for practice.' (M4: 176)

Two managers gave different reasons as to why they felt there was a problem:

'The length of the course doesn't help. Before it was as six-month secondment and was pure CCU, now that has been reduced to three months and something has to give. Before it was a good clinical programme now, it feels like a programme that is set up for university requirements for credits.' (M4: 124)

'There is too much self-directed study ... and some do not feel that they are getting enough tutorial time to fulfil the outcomes.' (M14: 124)

The managers' response by specialty to this issue is illustrated in Figure 8.3.

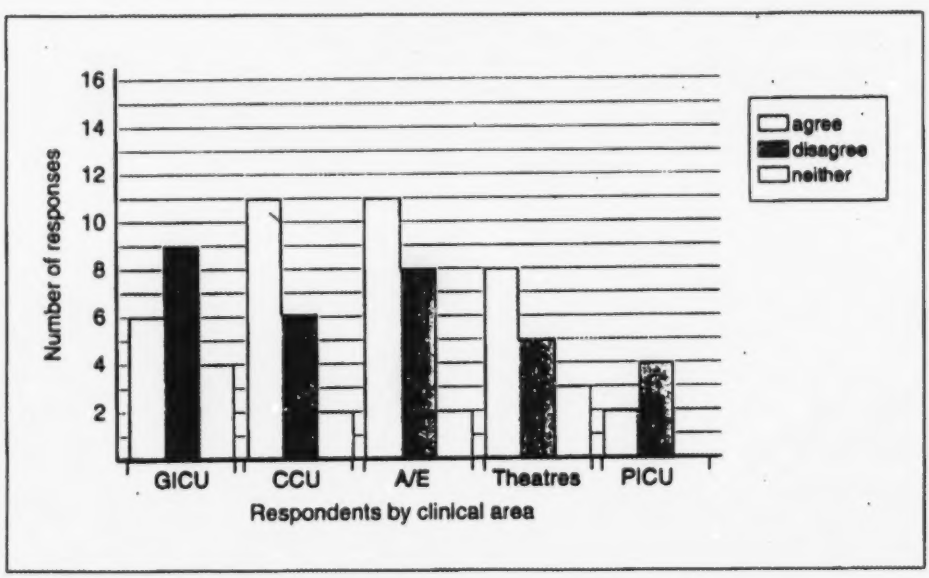


Figure 8.3: Managers' feedback from students indicates that the ENB programme does not adequately prepare them for practice

When asked whether they were satisfied with the competencies and skills of nurses who had trained outside the locality, 40% neither agreed nor disagreed – either because they had no such nurses (indicating an ongoing loyalty and preference for local programmes), or because they could not differentiate what came from the programme or from practice experience before or after the programme. Only 15% stated dissatisfaction with competencies of nurses who had undertaken the programmes in what ever locality.

Over half of the clinical managers (56%) felt that current changes in practice were reflected in the ENB programme, 33% disagreed and 11% neither agreed nor disagreed. Some factors identified by the managers to support their statement are listed below:

'Trying to do this by introducing the First Assistant module.' (M26: 176)

'Because of the excellence of the tutor.' (M16: 199)

Explanations as to why current changes were not reflected included:

'Difficult as practice changes so quickly.' (M8: 124)

'Revalidation can cause delay therefore new competencies tend to lag.' (M25: 100)

8.3.2 Preferred configuration of the programme

This section examines managers' preference for a fully integrated or separate ENB award; 59% wanted an integrated programme, while 30% did not and 11% neither agreed nor disagreed. Some felt that it was preferable to release staff over one longer period, while others considered it only possible to release staff for short periods. One manager felt that integration into a full award had caused the problem of a declining range of competencies and skills. A range of comments included below give a flavour of the issues raised:

'I really want the ENB 100. The diploma or degree is the icing on the cake.' (M15: 100)

'This would reduce the number of students going through the course because of time off for day release.' (M5: 183)

'Students prefer the integrated course.' (M9: 124)

'The diploma or degree may be seen as too much and put some people off.' (M6: 183)

'Full integration should not be at the expense of the ENB 100 – it should be about the content of the course rather than the number of credits.' (M25: 100)

'From observing the course content the diploma/degree would place the 199 in a better framework.' (M20: 199)

However, the majority of managers in each specialty did prefer the ENB programme to be integrated into a diploma or degree. The distribution of responses by specialty are illustrated in Figure 8.4.

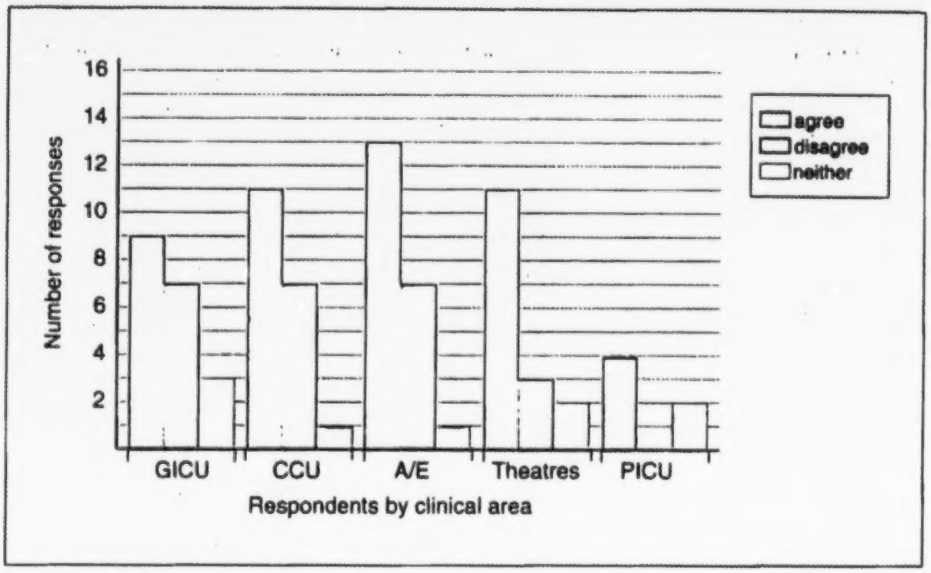


Figure 8.4: Managers' preference for an ENB programme to be integrated into a diploma or degree

8.3.3 Course funding

The majority of managers (86%) felt that the Board's clinical programmes should be funded through the consortia/region/person day allowance etc.; 12% disagreed and 2% neither agreed nor disagreed. However, 21% felt that additional credits to make up a degree or diploma should be funded by the student, but 52% believed students should not have to self-fund. In the main the managers believed that some form of means-testing should influence the amount of financial assistance or study leave given to any one student. Some considered that self-funding increased motivation and commitment, while others felt that provision should depend upon the amount of time and money the student had benefited from in the past. Some managers were committed to supporting students as long as the modules were relevant or useful to the practice setting, and others felt that as the programmes were all 'professional' then the trust had a responsibility to assist staff with their educational development, especially as programmes were becoming increasingly expensive. So although additional credits to make up an award were considered by 48% to be within the student's own or shared responsibility, the vast majority (86%) considered ENB programmes should be fully funded by the consortia (although there was some evidence from certain regions that the amount of provision for post-registration programmes was reducing).

8.3.4 Assessment issues

About a quarter (27%) felt that too much was expected of managers and preceptors in terms of practice assessment; of these, many were concerned with the length of time it took to complete the documentation which was particularly problematic during staff shortages. However, 71% disagreed with this statement, identifying that this was part of their job and that it was challenging and rewarding to undertake assessment. Two sites used their lecturer-practitioners to assess students and one manager made the following point:

> *'In the main, assessors are E /F grades but you need a Masters degree to be a teacher.'* (M8: 124)

However, several theatre managers pointed out that the assessment of nurses on the ENB programme paled into insignificance next to the amount of work and time required to complete the NVQ Level 3 assessment.

Exactly half of the managers felt they had sufficient input in the decisions about passing and failing students, and a further 66% felt that their staff were confident in assessing the students. Factors that gave staff the confidence included: past experience of the programme; senior positions within the unit and years of clinical experience on which to base their judgements; specialist preparation for assessment and ongoing support from the programme or link lecturer. For the 27% who had feedback from staff that they were not confident in assessing students, educational jargon in programme documentation was cited as a cause, alongside rapid changes to the assessment process, or unclear expectations about how to assess practice at the different academic levels. The following comments illustrate other issues raised by the managers:

> *'People find it difficult to be negative about the staff they are working with. It is much easier to assess someone who has come to your unit as a student.'* (M17: 199)

> *'They have the competencies to assess, but pass and fail, that is a different thing! If we are there to pass or fail the student why have the academic department?'* (M23: 199)

> *'Some feel threatened by the academic side, but not the practical. With it all being at degree level they feel inadequate to help.'* (M2: 124)

The distribution of responses by specialty to the issues of practice assessment are illustrated in Figures 8.5-8.7.

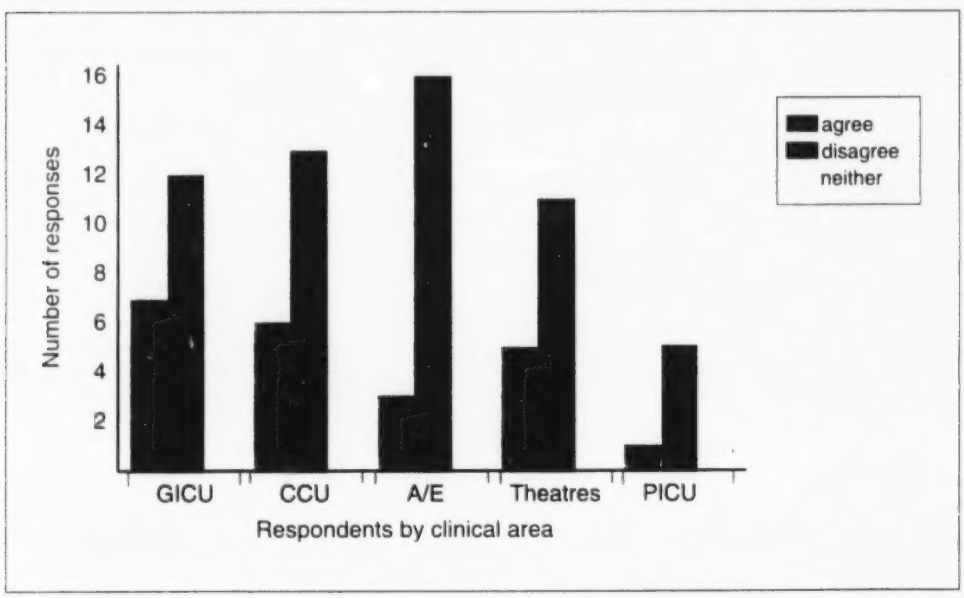


Figure 8.5: Managers' perception that too much is expected of themselves and preceptors in terms of practice assessment

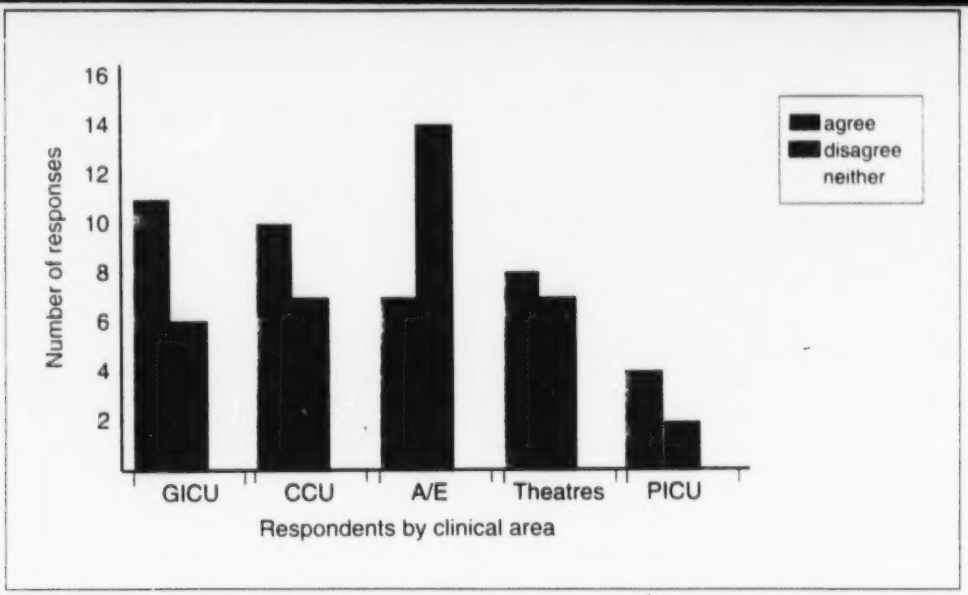


Figure 8.6: Managers' perception that they and preceptors have sufficient input on decisions about passing and failing individual students

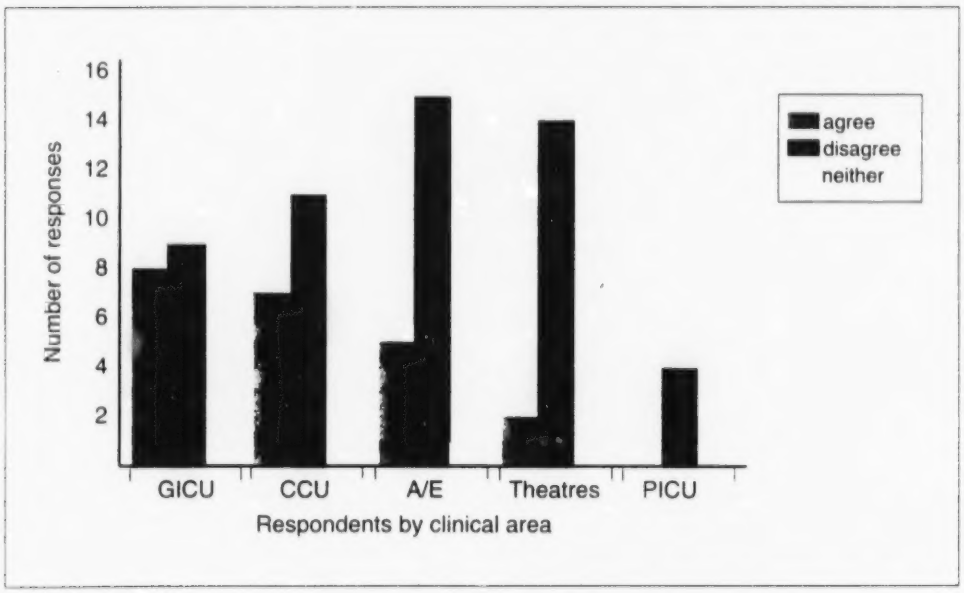


Figure 8.7: Managers' feedback from staff that they do not feel confident assessing students on ENB clinical programmes

8.3.5 The relationship with the local institutions

Just over half the managers (51%), agreed with the statement that the educational institution was more concerned with the number of students recruited than the quality of the practitioner at the end of the programme (Figure 8.8). However, 37% disagreed with this statement and a further 12% preferred not to comment. Many managers recognised that programmes had to attract sufficient numbers to make them viable, but others were concerned with the increase in prices, and or, the general rush for nurses seeking further academic credits. Many were responsible for allocating students to the programme, which may or may not have included the involvement of the programme leader. Several were quite cynical about the institution's agenda.

BEST COPY AVAILABLE

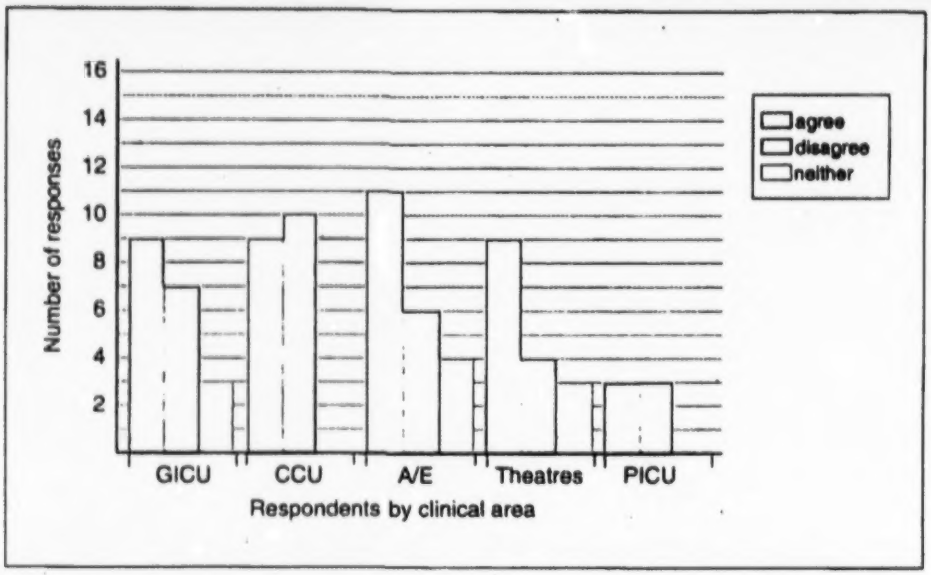


Figure 8.8: Managers' perception that the primary concern of the university is the number of students they recruit rather than the quality of the practitioner at the end of the programmes

Over two-thirds of the clinical managers (70%) felt that they could influence programme design and content by being on the programme management team, or through programme evaluations or good working relationships with the programme leader; 25% felt they could not, mainly due to institutions' requirements taking precedence over managers' requests for programme content; 5% neither agreed or disagreed. Several managers identified that they could influence programme design and content, but the extent to which they could do so was limited.

Just under two-thirds (64%) of the managers felt that the clinical involvement of the programme leader had reduced since integration into higher education; this was strongly felt by the managers of ITU, theatres, and A&E departments. A quarter felt this had not been influenced by integration, with some identifying that they had minimal contact prior to integration; others were emphatic that this was the cause of reduced clinical contact with the programme leader. In some localities a decision had been made to link with one specific unit for some clinical hours per week (with six identifying this as the lecturer-practitioner model). However, this did not necessarily guarantee that the manager was satisfied with students' competencies and skills at the end of the programme, although they appeared less likely to consider that the institution was only concerned with the number of students recruited. Examples of the type of issues raised by managers with regard to clinical involvement of the lecturers are shown below:

> *'Don't see much of him as he is spread out over so many areas. Students feed back that they cannot get hold of him.'* (M26: 124)
>
> *'The lecturer-practitioner is based in the area so this department is OK but others have less input. They all have link teachers but they are not necessarily theatre people.'* (M26: 176)
>
> *'I don't even know who the course tutor is and I have been a G grade here for 18 months.'* (M21: 199)
>
> *'The course tutor is not allowed to involve himself clinically with students and this did not use to be the case.'* (M19: 100)

About two-thirds (68%) of the managers had feedback from students indicating that too much time was spent on generic subjects and not enough on specialist aspects of the programme. A quarter disagreed with this statement, considering the mix appropriate and relevant to students who had entered the programme with experience in the specialty:

> *'... at the beginning of the course the students see too much weight in the generic elements but at the end of the course they appreciate the whole.'* (M25: 100)

> *'They seem to be getting away from the specialist focus but we wanted to avoid repetition.'* (M21: 199)

> *'Students have said this and asked the question who is going to teach them how to put a swab in a bag?'* (M5: 183)

Nearly three-quarters (73%) felt that students wanted to have the programme linked to an academic award, although 10% disagreed. The reasons given included: concern that the full award might alienate students who were fearful of the level of study, or where the locality had a high percentage of all-graduate registrants, they chose to undertake units of study rather than the full award; 17% stated they had not had this feedback or that the local programme was fully integrated and students did not have this option.

Only 28% of the managers stated they had feedback indicating students would like the programme to be run at degree level (Figure 8.9); a further 27% had not had feedback either way, or that it depended on the individual. However, 45% felt that students did not want a degree programme, although they may in future. These respondents were concerned that the degree did not make a good practitioner and would prohibit those with insufficient credits to undertake the programme. Those who agreed felt this was in keeping with the drift towards higher academic levels and an all-graduate profession. Managers in CCUs identified that their students were more likely to request a degree-level programme than other specialty managers.

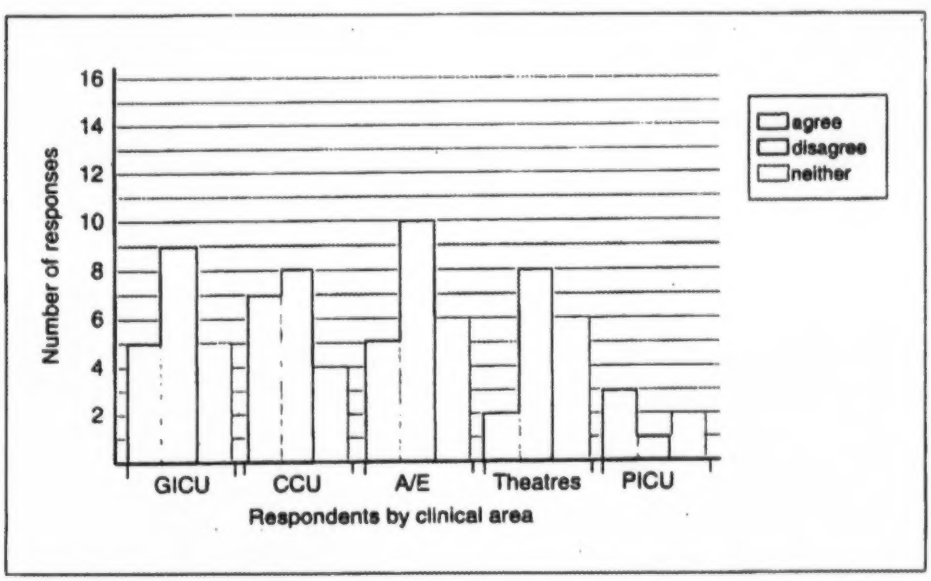


Figure 8.9: Managers' feedback from students indicating that they would like the programme to be run at degree level

Half of the managers felt that students would prefer a full-time programme (Figure 8.10), and almost as many said they would be prepared to release students for a full-time programme if they could (Figure 8.11). Those in favour felt that the full-time programme offered the opportunity to cross-fertilise ideas and see other units, work more closely with supervisors and discuss issues without concern over a full caseload. Conversely, 31% of managers identified that students were practical and recognised the resourcing and financial constraints prohibiting this approach. Indeed, many stated that they preferred the part-time programme because it *'united theory and practice'* and because students were in a position to *'pace their own learning to suit their lifestyle'*.

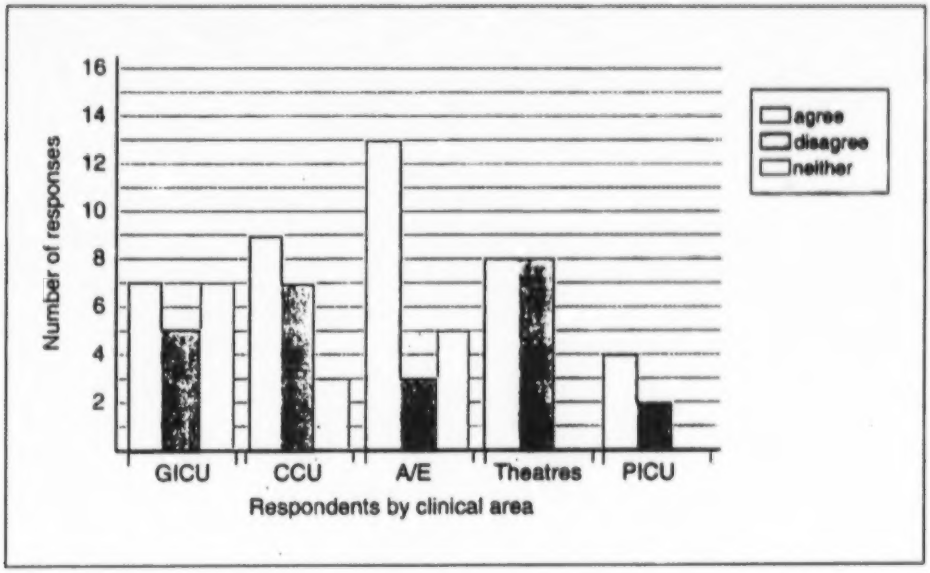


Figure 8.10: Managers' feedback from students indicating that they would prefer to have a full-time programme

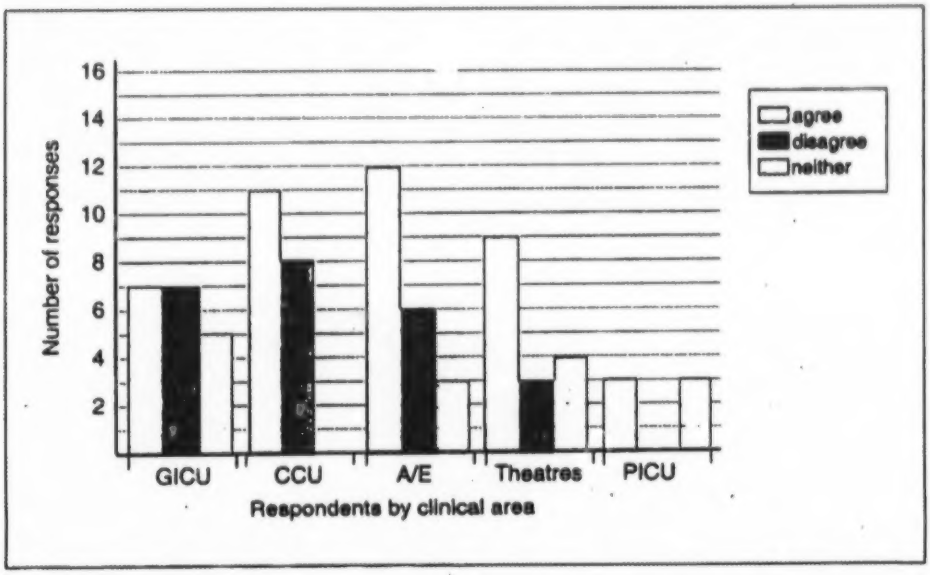


Figure 8.11: Managers who would be willing to second students on a full-time programme

Just under a third (31%) of managers agreed that the programme should be set at degree level (Figure 8.12), while 53% disagreed and 16% favoured a dual outcome approach. Although more A&E and ITU managers were in favour of degree programmes than those from other specialties, the majority stated felt the programmes should remain at diploma level. Those in favour of degree-level programmes gave the rationale that: they felt this reflected the general drift towards an all-graduate profession; only at this level could students acquire the necessary depth of knowledge; or it maintained the relative status of nursing to other health professions. Those not in favour felt that it was too soon to change to an all-degree post-registration programme, because many experienced practitioners would be prohibited from undertaking a degree programme because of insufficient academic credits.

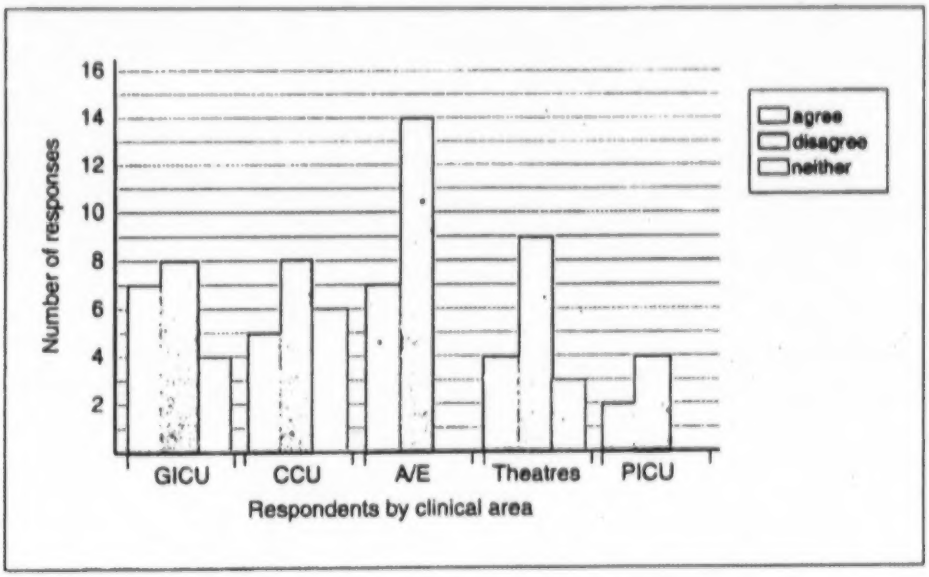


Figure 8.12: Managers who felt that the programme should be set at degree level

8.4 In summary

The sample size was 102, and there was an 80% response to the managers' survey:

- 68% were satisfied with the competencies and skills of nurses who had undertaken a Board numbered clinical programme, but the response was influenced by the perception of whether the programme was to prime practitioners for practice or to consolidate previous experience in the specialist environment
- 47% felt that raising the academic level of the programme had adversely influenced the range of skills and competencies students could acquire
- 46% had received feedback from students indicating that the programme did not adequately prepare them for practice, although of the 40% who had not received such feedback, most believed that students had the necessary competencies before starting on the programme
- 59% would prefer the Board's clinical programmes to be fully integrated into a diploma or degree
- 86% felt that the Board's clinical programmes should be funded through the consortia, although 47% felt that additional credits to make up a full degree or diploma should be

BEST COPY AVAILABLE

either self-funded or partially funded by managers, depending on the module's relevance; how much prior support the student had received; or based upon some form of means testing

- 71% did not think that too much was expected of themselves and the preceptors in terms of practice assessment
- 50% felt that they and the preceptors had sufficient input on decisions about passing and failing students; 66% identified that their staff were confident in assessing students, particularly where the staff had undertaken the programme themselves, were senior and had a great deal of experience, or where there were close links with the programme lecturer-practitioner in the clinical environment
- 51% felt that the educational institution was more interested in the number of students recruited than the quality of the practitioners at the end of the programme. This was less likely to be the case when the clinical environment had close working relationships with their institution, or had a lecturer-practitioner in post
- 70% felt that they could influence programme design and content, although some stated that their influence was limited
- 64% felt that the clinical involvement of the programme leader had reduced since their local college of nursing was integrated into a university
- 68% had received feedback from students that programmes were too generic and did not focus adequately on the specialist subject area
- 73% felt that students preferred programmes to be linked to a diploma or degree, but only 28% had feedback that students preferred the programmes to be set at degree level
- 50% said that students preferred full-time programmes and 51% stated they would be prepared to send students on full-time programmes (if funding and replacement costs were available).

Key points

- Programmes predominantly offered part-time flexible programmes and work-based learning. Although there were many benefits with this approach there are some concerns including: a changing expectation of the impact of learning from practice; the range of experience students encounter on the programme can be limited; learning from experience can be over-emphasised and classroom learning undervalued; and it depends upon the qualities and skills of lecturers and preceptors to facilitate meaningful critical reflection.
- Many aspects were found to be different about the programmes, including: the number of credits and the level at which programmes were set; balance between core, specialist and generic modules; learning outcomes; types of practice and theoretical assessment; and emphasis on shared learning.
- The purpose of a programme can be perceived in two ways: to prime nurses for a career in the specialty (and thereby develop core competencies) or to consolidate nurses' experience and broaden their intellectual skills. Any work undertaken to develop national threshold standards for critical care programmes would need to take account of these perceptions before determining the learning outcomes expected. It may be useful to explore these issues, emphasising the professional qualification rather than the academic credits linked to the award.

9.1 Introduction

This chapter presents an overview of the key issues raised from the research and explores the findings in the context of recent literature. The aim is to distil the critical issues to inform the implications for policy and practice review.

The programmes had developed in response to local purchaser needs and local institutions' interpretation of higher education initiatives. This had led to a distinct variation in programme configuration. The discussion is conceptualised into two key themes: what was common to the programmes and what was different. The final section discusses the purpose of the Board's numbered clinical award, as evidence suggests that two interpretations exist: of a programme to prepare practitioners for a career in the specialty, or of a programme to develop students' intellectual skills. Reaching consensus as to the purpose of the programme seems pivotal to any recommendations for policy or practice review. This dichotomy also goes some way to explain the differences in numbered clinical programmes evidenced in this research.

9.1.1 Context of the analysis

Curriculum analysis is a subject which receives scant attention in the literature, and the research team therefore had to develop a method of scrutinising the documents. The approach taken was to display the data and then sort them into categories and themes following a grounded theory approach. Being true to this approach, data were allowed to drive the comprehensive literature review comparing and contrasting the themes from the data with those emerging from the literature (and thus increasing the scope of the review). This approach differentiates this method from those used in previous Board-commissioned projects (e.g. Gerrish et al., 1997; Nolan et al., 1997). A detailed audit trail is included to facilitate the scrutiny of the approach.

A variety of methods were used to locate the documentary analysis and literature review in context: issues raised in the four focus groups, the telephone interview with lecturers at the outset, and the telephone survey with clinical managers in latter stages of the project were drawn upon. Each phase of data analysis has influenced the construction of subsequent phases of the study and analysis, but also the revision and re-conceptualisation of previously analysed data. This cyclical approach complemented the constant comparative method of analysis, but was supplemented by the verification and regular communication with programme lecturers and the clinical consultants (the iterative process).

Despite the measures to ground the work in context, the pragmatic approach cannot substitute for an empirical study identifying the lived experience of the curriculum and the impact the curriculum has upon learning.

There was found to be considerable diversity in the programme documents. Sometimes material submitted to the research team was not sufficiently clear to gain an understanding of programme structure and detail. When the definitive document was submitted, the research team was more able to understand the issues, although it took considerable time to locate certain information. Even when the full document was submitted some aspects still required clarification (e.g. the 'virtual module'). The iterative process was essential to enable verification of points, address errors and misinterpretations, and to revisit and reconceptualise analytical points. Despite these activities, some uncertainty remains and where this is the case it has been clearly stated. The fact that discussion with the authors of curricula (and lecturers) was required highlights the importance of a 'live' validation event; a time at which validators and curriculum designers can debate and clarify the curriculum.

Critical care is changing significantly in terms of where it takes place and by whom. Review of education for critical care nurses must be discussed in the context of these changes. The telephone interview data portrayed that critical care programmes were subject to forces and influences from four key sources:

- the higher education sector
- curriculum change
- the purchaser–provider commissioning process
- practice demands.

This resulted in curriculum documents being constantly changed and revised. It would appear that the structure and delivery of programmes has been influenced by changes affecting the expanding provision of higher education; the content has been changed by the agenda of health care policy and practice initiatives, but also by the structural changes to the programme. The next two sections explore the impact of these forces that have created commonalities and differences in the Board's critical care programmes.

9.2 Commonality across the programmes

For the majority of programmes commonality was in a part-time mode of study and an emphasis on work-based learning. This was in keeping with the shift towards lifelong learning and the explicit link between higher education and local employers on which the Dearing report and Government policy on post-compulsory education are based (Watson and Taylor, 1998). Although changes have been implemented to ensure flexible and accessible programmes, the impact of this mode of study on learning has not been fully evaluated.

111 BEST COPY AVAILABLE

9.2.1 Full-time/part-time provision

Five institutions explicitly identified the mode of study as either full-time or part-time (by 'day release'), but only two programme leaders identified that their programmes involved full-time secondment. Clarifying this issue became even more opaque when the research team talked to clinical managers, who suggested that they sent staff on full-time programmes, when the curriculum document suggested the programme was part-time. This may be accounted for by the flexible approach to delivery, which meant that some students could take additional modules to complete the prerequisite 900 hours for the award in a shorter time (which meant they were recognised as full-time by the educational institution) but the norm was to deliver the programme on a part-time basis.

Half the clinical managers thought students would prefer a full-time programme and 51% stated that they would send students on a full-time seconded programme if resources were made available. The issue of secondment was particularly significant for the paediatric intensive care programme; if students were not seconded to a PICU for practice they were not getting sufficient paediatric experience in the district general hospitals (Hewitt-Taylor, 1998). However, 49% of clinical managers identified that secondment was no longer feasible, and in periods of recruitment and retention difficulties, it was impossible to recruit staff to replace students seconded to programmes even if full funding was available. Some stated a preference for the day release model, identifying that this enabled students to relate theory to practice and keep other staff up-to-date. These issues are now discussed in relation to the literature.

9.2.2 The impact of work-based learning

The purpose of practice on the programme has shifted away from an emphasis on supernumerary students applying theory learnt on their programme (Fish and Purr, 1991) to programme members being work-based and having day release for theoretical modules. In this context, the practitioner's experience in practice is used as the basis for much of the learning. This also ensures that students are in a position to identify their own learning needs, sometimes in negotiation with others (through a learning contract), or based upon the application of module outcomes to practice, and in one case entirely on students' own experience. Those in favour of modular approaches and day release suggest that this increases the potential for linking theory and practice (e.g. Ferguson and Jinks, 1994), despite a dearth of evidence to confirm this. More research is required in this area, which should also take into account the availability of suitably trained practice supervisors/preceptors, especially for students who retain senior clinical positions.

Work-based learning raises some important issues which require further empirical study. First, the impact on the learning process: new learning may require significant 'un-learning', re-conceptualising and reconsidering aspects of practice in the light of new information (Gerrish et al., 1997). This may cause students to lose confidence when they discover contradictions to previously-held assumptions (Scholes, 1995). Second, the impact of peaks and troughs in confidence upon work performance raises key issues that warrant exploration: how and when do these students get the opportunity to rehearse their new ideas, take intellectual risks and apply them to practice? Who supervises this process and ensures patient safety?

The above questions assume that a clinical programme will have the effect of bringing about change in students, either to be more critically aware, more competent, or more knowledgeable; others may take the view that all a programme can do is get students in touch with what they already know. However, purchasers expect some change in practitioners as an outcome of a programme (Rushforth and Ireland, 1997). Perhaps change is more observable over time (i.e. when a student has been away from their unit on secondment); subtle changes

BEST COPY AVAILABLE

are more difficult to gauge when in continuing contact with practitioners (as in work-based learning). This also raises the question as to what extent change is tolerated in students who remain in their work base and assume a full or partial clinical role. Both these factors may influence clinical managers' assumptions about what students will acquire on a programme, and possibly their judgement on its efficacy.

Any discussion about the preferred outcome of a programme (or change in the practitioner) must take account of the expectations of the educational process. The first is that change takes place as a result of exposure to new learning (e.g. from classroom teaching or exposure to novel situations); the second, that change takes place as a result of experience (and the student learns to make what they already know explicit, by finding a means of articulating that or providing evidence for that experience). The latter approach is normally favoured in the facilitation of more advanced practitioners (Rolfe, 1997), but there was evidence of it being adopted in some critical care curricula. This illuminates two distinct expectations of the programmes: preparation for a career in the specialty; or consolidation of experience in the specialty (Section 9.4). Whatever, the expectation, the reality is that critical care programmes are being delivered to programme members with different academic and experiential profiles (Kite, 1998).

The purpose of students defining their own learning outcomes is to take account of the diverse range of academic and clinical experience each brings to the programme (Fish and Purr, 1991). Reflection is often put forward as the tool by which a practitioner is able to get in touch with the learning that has taken place through experience and make connections between theory and practice (Murphy and Atkins, 1994).

Reflection was used implicitly and explicitly in all the curricula in the sample, although only seven institutions cited a framework for reflection in their programme document. It was a predominant tool used in the assessment of practice as well as a means of enabling students to make sense of learning from past experience.

Reflective practice is claimed to provide a rationale for practice and, as such, has been embraced uncritically by the profession (Jarvis, 1992). It is expected that reflection will lead to change, but if or how this will occur is unknown (Day, 1993). Many have not fully considered the complex issues involved in adopting reflective practice and its impact upon students (Palmer, 1994), especially when they are work-based and do not necessarily have the shield of a student title.

The discomfort created by contradiction is cited as the starting point for reflection on action (Mezirow, 1990; Burns, 1994), which subsequently leads to perspective transformation (Mezirow, 1990). However, the importance of having structured reflection from a skilled facilitator to enable the practitioner to make sense of such experiences is critical (Schön, 1991; Rich and Parker, 1995; Johns, 1995b; Scholes, 1995). Reflection can expose vulnerabilities, and may for some threaten coping mechanisms and increase anxiety levels (Rich and Parker, 1995). Without the supportive guidance of an experienced facilitator (Mezirow, 1990), valuable learning opportunities could be missed (Houston et al., 1997). The type of facilitation required demands a range of advanced skills (Palmer, 1994; Rich and Parker, 1995); in some cases this responsibility fell to the lecturer-practitioner (Murphy and Atkins, 1994), but in the majority it was an expectation of the preceptor. How preceptors manage this complex and time-consuming process, especially with their colleagues (who also happen to be students) requires further investigation, especially as this process is given such a high priority in many of the practice assessment documents (Section 9.3.6).

9.3 Difference between the programmes

The next sections examine the differences illuminated in the programmes in terms of structure and content. The discussion explores the factors that may have influenced the increasing diversity in provision and examines the implications of a national award which is responsive to local need.

9.3.1 Comparability of level

The Board's clinical award attracted a diverse range of credits at Level 2 or 3; this ranged from four institutions offering critical care programmes at 60 Level 2 credits, to two offering one or all programmes fully configured into an Honours degree (with two others offering the award configured to an unclassified degree).

There was no consistency in the way Level 2 and Level 3 were differentiated across institutions. The descriptors attached to learning outcomes to express the different levels was used interchangeably within and across institutions. Marking criteria for assessment gave no clearer indication of what was nationally agreed to be diploma- or degree-level performance. No clear assessment tool could be linked to Level 2 or Level 3 outcomes either in practice or theory, and there was no relationship between the number of credits awarded to a module and the academic rigour associated with the assessment. However, the type of tools used and the language used to describe outcomes was consistent within institutions. This led the research team to conclude that the way in which different levels were recognised was locally determined and understood. However, the lack of standardised difference in the expectation for Level 2 or 3 work raises serious questions about the transferability and currency of credits between institutions.

Attempts are being made to ensure the standardisation of awards and greater comparability across institutions (HEQC, 1996; QAA, 1998). Modularisation has started the process by which internal comparability and standardisation is considered (Watson et al., 1989; McDowell, 1996), but there are now political and practical reasons for ensuring comparable and standardised CAT schemes (Watson and Taylor, 1998). This report has highlighted that the level at which the programmes were set, the number of credits awarded and the academic rigour for those credits was as diverse as the number of curricula in the sample. One could not clearly identify what constituted Level 2 or Level 3 academic work (Section 9.3.8); this became even more opaque when considering the assessment of practice (Section 9.3.6).

Some lecturers were trying to look to the future in determining which way programmes should develop, particularly in reference to the level at which they should be set. Although 19 lecturers were developing their programme to meet Level 3 competencies, they also identified that there had been heated discussion with colleagues as to whether or not this was the right course of action. Just under a third of clinical managers surveyed (31%) would prefer programme to be set at degree level, with 28% stating that they had feedback from students that a degree was the preferred level of the programme. Although this survey's findings should be viewed tentatively (in view of the sample size), it does suggest there will be a potential over-supply of degree programmes relative to the demand as perceived by clinical managers. However, this may reflect a difference in perceived need by clinical managers and programme leaders: the former reflecting on the practitioners in post who are waiting to undertake the programme; and the latter thinking ahead to the increasing number of registrants at diploma level who will be seeking the programme.

BEST COPY AVAILABLE

9.3.2 Curriculum frameworks

The modular framework was used in all curriculum documents. Nine institutions referred to a curriculum model and 10 to a professional nursing framework; 18 referred to a programme philosophy; three did not refer to a programme philosophy, curriculum framework or professional framework. Only three institutions explicitly linked the education curriculum model with a professional practice model. In some cases, it appeared that the modular structure was influencing what went in and what was excluded from the programme to fit the module outline, rather than any clear focus on other nursing or educational theory.

Walker (1996) suggested that the modular framework had its own conceptual framework; however, Kushner (1996) argued that modularisation was never conceived as curriculum development and therefore in the rush to modularise, many were left segmenting existing curricula into component parts (Robertson, 1996) – a term Watson (1996) called 'phantom modularity'. It would appear that many of the critical care curricula submitted were the subject of such compartmentalisation. Indeed in the telephone interview with lecturers we found that the 'modular bounce' (or reconfiguration by the educational institution of how many credits constituted a unit of learning or module) created a continuing pattern of editing and adapting programme content to match the curriculum structure rather than the basic needs of the programme.

9.3.3 Module weighting and configuration

There was no consistent balance between the core generic, core specialist and cluster modules. Weighting ranged between programmes that were as much as 100% specialist to those extreme cases which were made up of 84% generic modules and 62.5% specialist modules. This again demonstrated the diversity of the programmes and curriculum structures. Just over two-thirds of the clinical managers surveyed (68%) had feedback from students which indicated that too much time was spent on core generic subjects and not enough on specialist areas. Clinical managers linked with two institutions reported that they had raised this issue with programme leaders and as a result, the curricula had been radically revised.

This type of tension between the value of shared specialist learning and the view that it dilutes the educational focus of the specialty is evident in the literature. For example, in the case of A&E nursing, Bradshaw et al. (1994: 35) strongly advocated the approach, identifying that it increased access to students working within high dependency care; and increased the opportunity for *'sharing, transference and synthesis of ideas amongst nurses from different clinical areas'*. The opposite view was expressed by Crouch and Jones (1997: 12), who saw the *'generic critical care programme'* somehow *'detracting from the specialty of A&E nursing'* and *'failed to recognise the uniqueness and diversity of A&E practice'*. In part, this led to proposals for a Faculty of Emergency Nursing to support a developmental career pathway in the specialty and to produce the 'gold standard' for education and development of A&E nurses.

9.3.4 Shared learning

Since 1989, the Board has encouraged shared learning. This, in combination with modularisation, has created core generic, specialist and cluster modules. Subjects such as teaching and assessing, research and management were generally shared with any student on a nursing or health-care programme within the faculty in this study (no clear evidence was found to say whether this was shared with students from other faculties). Cluster and specialist modules tended to have a clear nursing focus, but again the pre-requisites for the programme did not necessarily prohibit or encourage interprofessional sharing.

BEST COPY AVAILABLE

There was very little evidence of interprofessional shared learning, except in training programmes such as ATLS and ACLS which had been integrated into the programmes in some institutions. Lecturers reported difficulties with shared learning, in finding enough taught time to provide lectures for practice specialties or offering tutorials to assist with the application of core concepts to the specialty. The expectation that preceptors could facilitate this was unrealistic (especially as students were staff nurses in their places of work and not supernumerary to the workforce). Indeed, Owen et al. (1998) identified, in their evaluation of the Higher Award, a dearth of adequate support for students in the clinical environment. Many lecturers hoped to resolve this perceived loss of specialist focus when developing new modules and programmes by reducing the shared content with other critical care programmes. Although this was a view shared by many lecturers, it was particularly an issue for paediatric and theatre lecturers.

9.3.5 Learning outcomes

After extracting and comparing the content of learning outcomes, it was found that the emphasis on, and coverage of, topics varied considerably. These topics were grouped into categories and the categories into themes, illuminating four themes shared by all programmes: approaches to care; aspects of care; wider aspects of the professional role; and physiology. These illustrated the breadth of abstraction that had to be reached before finding commonality across all the programmes. However, this finding needs to be taken in the context that the learning outcomes were written in a diverse style. For example, when examining the physiology theme, one institution may refer to: *'all the biopsychosocial needs of a patient'* as a learning outcome, while another institution would list a number of detailed outcomes related to applied physiology and pathophysiology (Section 7.3.8). This seemed to have more to do with the institution's house style in the number of learning outcomes attached to each module (as this approach to writing outcome statements was evident in all critical care programmes within one institution), and could account for the apparent lack of focus on the care of the child in adult settings. The documentary analysis revealed only two adult intensive care programmes, one theatre and recovery, and three A&E programmes which made specific reference to paediatric issues. Therefore, a written curriculum may (and probably does) belie the delivery of topics, material and learning processes that take place as a result of exposure to that curriculum. However, faced with that evidence alone, the findings of this report indicate a great diversity in the range of topics addressed in programmes which share the same title (i.e. the Board's award).

Since integration into universities the range of topics included in the programme has expanded, but the amount of taught and tutorial time has diminished, and there has had to be some rationalisation of programme content as a result (Trowler, 1996). What has been shed by one institution may have been retained in favour of other material by another. This has given rise to a range of topics and themes being addressed in the critical care curriculum and a lack of homogeneity in the programmes.

As the topics covered in the curriculum were not common, was there common ground in the assessment of practice or theory? The answer to this question was 'No'. The approach to the assessment of theory and practice was also diverse.

9.3.6 Practice assessment

Some lecturers identified their difficulty in getting the educational institution to recognise practice outcomes as part of an academic award. Many had created innovative approaches to facilitate this in a form that was acceptable to the institution and expressed great pride in this; however, this engendered a vast range of approaches across institutions. The approach tended to be common to an institution (or level of programme within that institution),

BEST COPY AVAILABLE

but institutions demonstrated great individuality in their combination of adapted assessment frameworks to gauge progression and competence, tools used to gather evidence that learning had taken place, and construction of the learning outcomes. This raised significant questions about the comparability and standard of practice being assessed across institutions.

Two distinct approaches were evident in the construction of practice learning outcomes: pre-determined outcomes set by the curriculum planners and student-determined outcomes. Some were written in an abstract style to accommodate the diverse clinical settings in which students were based (and also their disparate range of prior clinical experience).

A variety of frameworks were used to assess progression and the achievement of competence. Like Gerrish et al. (1997), the research team found the favoured model was that of novice to expert (The Dreyfus Skill Acquisition Model) (applied to critical care by Benner, 1984), although Steinaker and Bell's (1979) experiential taxonomy was dominant among programmes leading to Level 2 credits.

A variety of assessment tools were used in each of these approaches. Many used a combination, but the predominant tool was the learning contract, often accompanied by a portfolio of evidence. The tools used created the possibility for learning from practice to be transformed into a medium which allowed it to be theoretically assessed and graded. This served two purposes: it overcame the problem of preceptors having to determine grades of performance, and sometimes even what constituted Level 2 or Level 3 practice. Such an approach was congruent with the literature, which reports clinicians' continuing problems in determining diploma- or degree-level practice (Gerrish et al., 1997). The second was that it reduced the burden of assessment on clinicians or unit managers.

Although 71% of clinical managers did not feel that too much was expected of them in terms of practice assessment, and two-thirds identified that their staff were confident assessing the students, a third were concerned that practice assessment documentation was obscured by educational jargon, that it was rapidly changing, that sometimes it was 'too woolly', or over-emphasised reflection (Section 9.2.2) rather than clinical care, and did not necessarily deal with students' competencies and skills.

This raises an important point about what is being assessed: direct observation of practice or the written reconstruction of practice by the student. The former approach was more likely when an adapted Steinaker and Bell (1979) or Benner (1984) framework was in place, the latter was more common to student-defined learning outcomes and the use of portfolios which included written accounts of practice and reflections on what had been learnt from that experience. This approach clearly assessed students' intellectual ability to write about their experiences but did not necessarily reflect their performance in practice (Mallik, 1993; Ferguson and Jinks, 1994; Allmark, 1995; Gerrish et al., 1997). However, although the Steinaker and Bell framework (which required direct observation of performance) was more likely to be used in a programme leading to diploma credits, it was used in one Level 3 programme. Gerrish et al. (1997) concluded that it was the higher order intellectual skills of the undergraduate that enabled them to analyse practice, and these skills differentiated undergraduates from diploma students. Therefore, the processes by which this was assessed would be more in keeping with the reconstruction of practice in the written form. However, this does raise concerns about the comparability of practice assessment as well as internal and external validity and reliability of the assessment process.

9.3.7 Supporting assessors in practice

Fish and Purr (1991) stressed the importance of maintaining educational links with practice assessors, a point echoed by Gerrish et al. (1997) and Day et al. (1998). However, the

BEST COPY AVAILABLE

telephone interview with lecturers identified that since integration into the university, the demands of doing research, while trying to maintain teaching commitments and maintaining clinical links had reduced the time available to support practice. Furthermore, many lecturers found their administrative duties had increased significantly since integration (due to modularisation and semesterisation) and that the time available to maintain practice links was being compromised (similar findings were reported by Day et al., 1998). In addition, they identified that a great deal of time was taken up with assessment and this had to some extent got in the way of the teaching process (similar findings were reported by HEQC, 1996; McDowell, 1996; Gregg, 1996; Trowler, 1996).

Another factor which may have influenced the amount of time available to support practice assessors was the overall reduction in the number of 'teachers' employed (5,095 in March 1997 to 4,851 in March 1998), which included a reduction in the number of lecturer-practitioner posts (514 March 1997 to 451 in March 1998) in the same period (ENB, 1998c). However, without clear evidence to link the posts to the programmes, or the number of students recruited, it is difficult to draw any firm conclusions; however, it may indicate an increasing workload resulting from staff vacancies. Other factors identified by Day et al. (1998) included the geographical distances of some practice settings, an increasing demand for academic credibility, and the cultural emphasis within universities on the knowledge paradigm.

Two thirds of the clinical managers (64%) surveyed identified that lecturers' clinical involvement had reduced since the colleges of nursing had integrated into the university. Some managers expressed dissatisfaction with their links with programme leaders, especially where the link teacher did not have a clinical background in the specialist area. Others expressed great satisfaction with their links, especially where the lecturer-practitioner model was adopted (a finding echoed in Day et al.'s 1998 study). However, some lecturers identified that even when they assumed this role, they had to take a strategic decision to support one clinical environment (especially where their students came from a wide geographical area), which meant that one unit greatly benefited from their presence, but this raised concern for students and practice assessors in other areas.

9.3.8 Theoretical assessment

A wide range of theoretical assessments were used in the programmes. Essays were the most favoured approach, followed by care study, critical incident analysis and research critique. All assessments attempted to directly link theory and practice through use of research, and sometimes reflection. Some programmes used examination, but this was normally when assessing applied physiology or biological science knowledge. Like Gerrish et al. (1997) the research team found that two distinct frameworks existed to define progression and achievement in the assessment of theory and practice (Sections 6.7 and 6.8).

The assessment workload and academic rigour of the assessments varied greatly across institutions and levels. The difference between the rigour of work submitted for Level 2 or Level 3 credits was opaque when compared across institutions, but seemed to be clearly understood on a local basis. The emphasis on assessment was mentioned by some clinical managers, who expressed concern that the focus on completing theoretical or practice assessment tasks had distracted students from a focus on clinical care. The individual assessment of modules and the predisposition for this to drive teaching and learning had been widely reported in the literature (HEQC, 1996; Gregg, 1996; Jackson, 1996; Trowler, 1996; McDowell, 1996; Warner, 1996).

BEST COPY AVAILABLE

9.4 The purpose of the Board's clinical award

Because programmes were so diverse in terms of the topics covered, the assessments undertaken, and what was expected of students, some clinical managers (in the survey and at focus groups) identified that they could no longer identify what was the 'gold standard' of the Board's award. Crunden (1998) identified the importance for students completing clinical programmes to have some shared core competencies and that these should be the minimum requirement associated with the award. However, the survey of clinical managers identified that 68% were satisfied with the competencies and skills of nurses who had undertaken the Board's clinical programmes. This difference could be accounted for by the expectation clinical managers and students had of the programme; for some it was to develop core competencies and skills to fit them for practice in the specialist environment (in keeping with Crunden's suggestion), for others it was about consolidating clinical experience and expanding the knowledge base of the professional nurse.

While the requirement continues for senior staff members (in post) to possess the Board's award (and therefore have to undertake the programme even though they have many years' relevant clinical experience) some programmes are having to accommodate students with a hugely diverse range of clinical experience (Bradshaw et al., 1994). Also, because many staff are now recruited to the department/unit prior to undertaking a programme (Ashworth, 1996; Kite, 1998), departments are setting up in-house induction programmes which include basic skills and competencies (Durston and Rance, 1995). Such a changing profile of students has meant that clinical programmes must respond to an increase in the breadth and scope of demands. Self-directed learning and the articulation of student-defined learning outcomes aim to accommodate such a range of experience, placing students in the central role of determining what they need to know and planning their learning journey (Fish and Purr, 1991).

Nurse education has the 'twin functions of professional selection and personal development' (Purdy, 1997: 135). This has the potential for drawing it in two directions between the public need for competence and the private need for individual growth. When the additional layers of purchasers of nurse education and requirements of higher education are applied, this compounds the complexity of the issue over calls for core professional competencies (e.g. Crunden, 1998), as well as core employability skills (DfEE, 1998a) for all people those undertaking programmes of education.

9.4.1 Local responsiveness and national need

Rushforth and Ireland (1997) argue that trusts, as purchasers of education, will reflect a predominantly local focus and be predisposed to making decisions relative to short-term need. Such an approach acts as an immediate barometer to retention and recruitment issues and means that educational institutions and consortia can negotiate flexible and responsive educational provision, especially in short post-registration programmes. But it also means that they can heighten the tension between an emphasis on competence and professional selection (Purdy, 1997), fitness for purpose, rather than personal development or fitness for the future of the practitioner (Rushforth and Ireland, 1997). However, Milligan (1998) contends that competence can be constructed as holistic and in this way can incorporate empowerment of students and practitioners, facilitate critical thinkers, give equal weight to the process of education as the outcome, and draw upon a variety of forms of knowledge (tacit, propositional and experiential) in practice. In this way, the principles of lifelong learning can be embraced alongside the successful integration of theory and practice mirroring Jarvis' (1985) definition of competence. Such measures seem to match the clinical managers' desire for practitioners to acquire core

BEST COPY AVAILABLE

competencies, as well as professional development which enabled the breadth and scope of learning.

The telephone survey and focus groups yielded evidence of clinical managers who were solely responsible for selecting and sending students on programmes. These managers assumed that those selected were already competent. For a minority, because the programme in their minds was about the consolidation of experience there should be no question of the student failing. Such an approach assumes the programme is for practitioners well advanced in their clinical career. This may reflect a local approach to the supply and demand for places, but does not take account of less experienced nurses being sent on the programme by managers who feel that it is about preparing nurses for a career in the specialty, and introduces a new purpose to the Board's clinical programme more fitting to the concept of specialist practice. This also illuminates why programme content may have differed so greatly between institutions. However, the dilemma remains, that each of these programmes bears the same title, implying that they have something in common. Programmes designed to accommodate local purchasers' requests for specific learning outcomes might not necessarily reflect national needs. It is only when nurses move away from their local unit that differences in expectation of the learning outcomes becomes evident (Rushforth and Ireland, 1997). However, the tension created by a national award that also seeks to accommodate local needs creates this type of problem. When the programme is influenced by educational philosophies of the individual educational institution, this can give rise to increasing difference in both the academic level of the programme and emphasis on specific learning outcomes.

This problem is not new. In the past the difference in the clinical programmes was evidenced by the hospital certificate/badge which depicted a programme undertaken in a perceived centre of excellence. As the award now comes from the university, this might be as recognisable to clinical managers and may convey a diminishing clinical value in the programme. More emphasis is now placed upon the Board's clinical award to determine the quality of staff that work on their unit (especially as in some places the number of staff with the award were used by service as a quality indicator). This all heightens the call for a common threshold standard for the Board's clinical programmes.

Pivotal to these arguments is the notion of the purpose of the critical care programme. As has already been indicated, for some, this was about preparing practitioners for a career in the specialist environment, whilst for others it was more about consolidating clinical experience; this can set up a double error effect. The first error is the assumption that competence has been acquired prior to selection for the programme and therefore, the acquisition of core clinical competencies is excluded from the programme. The second error is that once on the programme, action should be taken to resolve areas of incompetence and students should not complete the programme if they remained incompetent; however, if the programme did not specifically address basic aspects of practice (as it is assumed that students already have these competencies), their absence would not come to light.

These errors are made more probable in the context of a dominant philosophy which rejects the notion of duplication, or revisiting material that should have been covered previously (McGrother, 1993). However, if educationalists are supposed to guarantee a set of competencies when they confer the Board's award (ENB, 1996b), they must ensure that those competencies have been assessed. That would seem to be what is being called for in terms of a 'gold standard' of the Board's award. This comes back to the pivotal argument of the purpose of the critical care programme and the differing perceptions held by clinical managers and attempting to accommodate such a heterogeneous student population.

BEST COPY AVAILABLE

10.1 Introduction

In undertaking applied research it is important to consider the implications of the findings for both policy and practice. The previous chapter highlighted the major issues arising from the analysis, this chapter presents the implications of these findings. The Board is considering an empirical study which would examine the outcomes of curricular intentions (ENB, 1997a) and recognises the limitations of the documentary analysis which can only make explicit the intended learning outcomes for students on the programmes. However, this research has illuminated some key areas that can inform a larger empirical study but also some key issues which warrant consideration prior to the completion and publication of future work.

10.2 Implications

We propose that the following implications be considered.

1. The expectation of the critical care programme seems to vary. There is a need to consider clarifying the purpose of these programmes. This would logically pre-empt any policy directives to emphasise either the acquisition of core competencies or the acquisition of core intellectual skills (although it is recognised that a professional programme would not seek to exclusively attend to either one or the other).
2. The Board should consider further clarifying its definition of competence.
3. The Board should consider clarifying the basic elements of a critical care programme that bear the same title thus illuminating the 'gold standard' of it numbered clinical programme. Although it is recognised that it is important to have local responsiveness to need, it may be useful to identify a proportion of the programme (through learning outcomes) that is common to all those bearing the same title. In addition, the maximum proportion of the programme dedicated to local interpretation should be clarified, for example, following the model of the UKCC (1994) in determining that core modules should not exceed two thirds of the total programme in specialist practice programmes. It would be useful for the Board to give clearer guidance as to the preferred module configuration and weighting in programmes, and in the light of the evidence in this report, to increase the amount of cluster modules in the Board's clinical programme.
4. The Board should consider reviewing its policy on shared learning in shorter and specialist critical care programmes, since available taught and tutorial time has been reduced due to structural changes in the programme.
5. The Board should consider setting a minimum or maximum number of credits and the academic level at which a critical care programme should be set. This may facilitate greater comparability in the programmes.
6. Further consideration should be given to identify a national threshold for diploma- and degree-level theory and practice. A taxonomy of outcome descriptors referring to Level 2 or Level 3 work may be useful in establishing agreed standards. These considerations might include whether or not post-registration diplomates and undergraduates should be attaining the same academic and practice standards as pre-registration students when this is articulated by common level descriptors. In addition, consideration as to the integration of theoretical and practice assessment frameworks to gauge progression and

BEST COPY AVAILABLE

attainment of threshold standards may unify theoretical and practice assessment which lead to an award.

7. Further consideration should be given to the definition, interpretation and application of criteria used for discriminating between practice at different levels and grading that practice.

8. Although innovative work has been undertaken in the area of practice assessment to gain recognition by the universities for practice as 50% of the award, further consideration needs to be given to the medium through which practice is assessed (i.e. direct observation or written accounts of practice in critical care programmes). Although work has been undertaken to develop internal consistency across programmes in the assessment process, programme designers may wish to consider external consistency and comparability in defining learning outcomes as well as the internal and external validity and reliability of the assessment process.

9. Educational institutions should be encouraged to review how their critical care programmes fit into their overall portfolio of programmes of education which emphasises professional as well as academic progression.

10. Educational institutions should be encouraged to review the way in which practice assessors are prepared and receive continuing support for their role and evaluate the changes that have occurred since integration into the higher education sector.

11. Educational institutions should be encouraged to review how they facilitate critical care programme leaders to realistically meet all the demands of their academic and professional role.

12. Curriculum development teams should be encouraged to:

    - consider the type of models used to frame the curriculum and caution against modularisation as the only framework as this can lead to reductionism and segmentation rather than integration of a programme leading to a professional award
    - extend membership to include practitioners and lecturers from other institutions to promote greater consistency in the learning outcomes of similar numbered clinical programmes
    - consider how they will integrate core employability skills; core professional competencies; and generic graduate standards or diplomate attributes to their critical care programmes
    - consider how they facilitate experience in units and departments outside the student's own work environment
    - clarify the difference between duplication of learning and reviewing and revisiting topics at a greater breadth and depth to create fresh insights and understanding for students
    - consider the emphasis on the care of children, particularly in A&E and ITU programmes preparing practitioners who do not have local PICU facilities
    - consider some common threshold for the amount of assessment that is expected for students (and academic effort related to the level of the programme). Although it is recognised that institutions have gone a long way to developing internal consistency in student effort, this now warrants attempts to develop external consistency

BEST COPY AVAILABLE

- reconsider the proportion of student-defined learning outcomes in a programme leading to a national award
- reconsider the focus on client-centred care (configured to cluster and specialist modules) which also includes broader aspects of the professional role (configured to core/specialist modules)
- reconsider the way in which the Board's numbered clinical award fits into the overall portfolio of programmes that recognise professional career progression as well as academic progression. This may also require a review of the selection procedure for the programmes and career counselling facilities for potential students
- consider how the Board's quality standards framework is implemented and how issues of internal as well as external consistency in threshold standards are managed.

13. There is a need for further research and evaluation in the following areas:
    - the quality of the learning experience in the work-based model
    - the impact of work-based learning on the clinical performance of the student
    - the different models and tools of practice assessment should be evaluated to identify which approach most effectively encourages deep learning.
    - the practice of nurses who have undertaken either diploma or degree critical care programmes needs to be evaluated to identify the difference in their clinical performance and compare this with the performance of nurses who have undertaken a critical care programme which leads to Level 2 or 3 credits which fall short of a full academic award; particular emphasis should be placed upon the evaluation of the quality of care these practitioners provide and their influence on patient outcomes.

Alderman, C. (1996) Heart to heart. *Nursing Standard*, 10, 34, 22-23.

Aldous, P. (1996) *Modularisation at the University of Leeds 42-45 Modular Higher Education in the UK: In focus*. London: HEQC.

Allen, R. and Layer, G. (1995) *Credit Based Systems as Vehicles for Change in Universities and Colleges*. London: Kogan Page.

Allmark, P. (1995) A classical view of the theory-practice gap in nursing. *Journal of Advanced Nursing*, 22, 1, 18-22.

Anderson, J. and O'Brien, M. (1995) Challenges for the future: the nurse's role in weaning patients from mechanical ventilation. *Intensive and Critical Care Nursing*, 11, 1, 2-5.

Areskog, N. (1991) Multiprofessional education in an international perspective. In: Areskog, N. (ed.) *How to Educate Health Professionals of the Future*. Linkoping, Sweden: Linkoping University, Faculty of Health Science.

Armstrong, M. (1995) CATS levels: a question of faith? In: *Would You Credit It?* Conference Proceedings. Newcastle: University of Northumbria at Newcastle.

Ashworth, P. (1990) High technology and humanity for intensive care. *Intensive Care Nursing*, 6, 3, 150-160.

Ashworth, P. (1996) Learning for life (editorial). *Intensive and Critical Care Nursing*, 12, 1, 1.

Ashworth, P. (1997) Critical care competencies (editorial). *Intensive and Critical Care Nursing*, 13, 1, 1.

Atherton, T. (1995) Children's experiences of pain in an accident and emergency department. *Accident and Emergency Nursing*, 3, 2, 79-82.

Audit Commission. (1993) *Children First: A study of hospital services*. London: HMSO.

Audit Commission. (1996) *By Accident or Design? Improving A&E services in England and Wales*. London: HMSO.

Ball, C. (1997) Planning for the future: advanced nursing practice in critical care. *Intensive and Critical Care Nursing*, 13, 1, 17-25.

Barker, M. (1996) Should there be a nursing presence in the operating theatre? *British Journal of Nursing*, 5, 18, 1134-1137.

Barriball, K., Christian, S., While, A., Bergen, A. (1996) The telephone survey method: a discussion paper. *Journal of Advanced Nursing*, 24, 1, 115-121.

Beales, J. (1997) Innovation in accident and emergency management: establishing a nurse practitioner-run minor injuries/primary care unit. *Accident and Emergency Nursing*, 5, 2, 71-75.

Bell, C. (1998) A view from the UK: commentaries to the QAA proposals. *Higher Education Digest*, 31, 9.

Benner, P. (1984) *From Novice to Expert: Excellence and power in clinical nursing practice*. Menlo Park, Ca: Addison Wesley.

Benner, P. (1996) A response by P. Benner to K. Cash 'Benner and expertise in nursing: a critique'. *International Journal of Nursing Studies*, 33, 6, 669-674.

Benner, P., Tanner, C., Chesla, C. (1996) *Expertise in Nursing Practice: Caring, clinical judgement and ethics*. New York: Springer.

Benner, P. and Wrubel, J. (1989) *The Primacy of Caring: Stress and coping in health and illness*. Menlo Park, Ca: Addison-Wesley.

Bentley, J. (1996) Child-related services in general accident and emergency departments. *Journal of Advanced Nursing*, 24, 6, 1184-1193.

Bevan, P. (1989) *A Report into the Management and Utilisation of Operating Departments*. NHSME Value for Money Unit. London: HMSO.

Bevan, P. (1990) The Bevan Report: A personal response by Professor P Gilroy Bevan to comments on behalf of the National Association of Theatre Nurses on the Steering Group Report on the Management and Utilisation of Operating Theatres. *British Journal of Theatre Nursing*, 27, 5, 4.

Birchenall, P. (1994) A change in style (editorial). *Nurse Education Today*, 14, 6, 416.

References

Birchenall, P. (1995) The new learning environment: fact or fiction? (editorial). *Nurse Education Today*, 15, 4, 237-238.

Birchenall, P. (1997) Reasons for rejection (editorial). *Nurse Education Today*, 17, 2, 85-86.

Bird, D. and Roberts, P. (1998) The role of library and information services in the modular curriculum. *Nurse Education Today*, 18, 7, 583-591.

Bloom, D. (1956) *Taxonomy of Educational Objectives 1: Cognitive domain*. London: Longman.

Bowler, S. and Mallik, M. (1998) Role expansion or extension: a qualitative investigation of the perceptions of senior medical and nursing staff in an adult intensive care unit. *Intensive Critical Care Nursing*, 14, 1, 11-20.

Bradburn, N. and Sudman, S. (1979) *Improving Interview Method and Questionnaire Design*. San Francisco: Jossey Bass.

Bradshaw, P., Burtun, P., Murray, C. (1994) The development of a diploma/ degree course for accident and emergency nurses. *Accident and Emergency Nursing*, 2, 7, 33-39.

British Paediatric Association. (1987) *Report of a Working Party on Paediatric Intensive Care*. London: British Paediatric Association.

British Paediatric Association. (1993) *The Care of Critically Ill Children: Report of a multidisciplinary working party on paediatric intensive care*. London: BPA.

Brykczynska, G. (1989) *Ethics in Paediatric Nursing*. London: Chapman and Hall.

Buckingham, S. (1993) Children have unique needs. Do they have the right to be cared for by specially educated paediatric nurses? *Journal of Clinical Nursing*, 2, 3, 329-330.

Burnard, P. (1994) Counselling in critical care nursing. In: Millar, B. and Burnard, P. (eds) *Critical Care Nursing: Caring for the critically ill adult*. London: Ballière Tindall.

Burns, S. (1994) Assessing reflective practice. In: Palmer, A. Burns, S., Bulman, C. (eds) *Reflective Practice in Nursing. The growth of the professional practitioner*. Oxford: Blackwell Scientific.

Bush, A. (1993) Children die to save money and pride. *British Medical Journal*, 306, 1551.

Byrne, G. and Heyman, R. (1997) Understanding nurses: communication with patients in accident and emergency departments using a symbolic interactionist perspective. *Journal of Advanced Nursing*, 26, 1, 93-100.

Carnevale, F. (1991) High technology and humanity in intensive care: findings a balance. *Intensive Care Nursing*, 7, 1, 23-27.

Carver, J. (1998) The perceptions of registered nurses on role expansion. *Intensive and Critical Care Nursing*, 14, 2, 82-90.

Cash, K. (1995) Benner and expertise in nursing : a critique. *International Journal of Nursing Studies*, 32, 6, 527-534.

Caunt, J. (1992) The changing role of coronary care nurses. *Intensive and Critical Care Nursing*, 8, 2, 82-93.

Caunt, J. (1996) The advanced nurse practitioner in CCU. *Care of the Critically Ill*, 14, 3, 136-139.

Central Health Services Council. (1970) *The Organisation and Staffing of Operating Departments*. London: HMSO.

Centre for Advancement of Interprofessional Education. (1988) *Survey of Inter-professional Educational Activity in the UK*. London: CAIPE.

Cheetham, D. (1993) Pre-operative visits by ITU nurses: recommendations for practice. *Intensive and Critical Care Nursing*, 9, 4, 253-262.

Chellel, A., Dawson, D., Endacott, R., Andrews, I. (1995) Patient scoring systems in critical care: can they be used as measurements of nursing workload? *British Journal of Intensive Care*, 5, 5, 250-254.

Coad, S. (1998) *Supporting Staff Caring for Critically Ill Patients Outside the ICU Environment: Development of a new educational role*. Unpublished paper presented at BACCN Conference 20-22 October 1998.

Confederation of Australian Critical Care Nurses. (1996) *Competency Standard for Specialist Critical Care Nurses*. Hornsby, New South Wales: Confederation of Australian Critical Care Nurses.

Conway, J. (1995) A monkey can do your job! *British Journal of Theatre Nursing*, 5, 9, 12-15; 31.

Cooper, M. (1993) The intersection of technology and care in the ICU. *Advances in Nursing Science*, 15, 3, 23-32.

Coopers and Lybrand. (1997) *Strategic Issues for Universities in the Post-Dearing World: Education and training services*. London: HEQC.

BEST COPY AVAILABLE

Council of Heads and Deans of UK Universities Faculties of Nursing, Midwifery and Health Visiting. (1997) *Breaking the Boundaries Educating Nurses, Midwives and Health Visitors for the Next Millennium: A position paper.* London: CHD.

Cox, P. (1992) Children in critical care: how parents cope. *British Journal of Nursing*, 1, 15, 764-768.

Craft, J. (1993) The special needs of the critically ill child. *Care of the Critically Ill*, 11, 1, 13-15.

Crinson, I. (1995) Impact of the Patient's Charter in A&E departments 2: the emergency nurse practitioner. *British Journal of Nursing*, 4, 22, 1321-1325.

Crouch, R. (1992) Inappropriate attenders in A&E. *Emergency Nurse*, 6, 27, 7-9.

Crouch, R. (1997) *Plenary discussion at RCN National Membership Group Conference.* London, July 1997.

Crouch, R. (1998) *Towards a Faculty of Emergency Nursing.* Paper delivered to Providing Education for Practice BACCN 1998 Annual Conference, Manchester 20-22 October. In press.

Crouch, R. and Dale, J. (1994) Identifying feelings engendered during triage assessment in the accident and emergency department: the use of visual analogue scales. *Journal of Clinical Nursing*, 3, 5, 289-297.

Crouch, R. and Jones, G. (1997) Towards a faculty of emergency nursing: planning for the future. *Emergency Nurse*, 5, 6, 12-15.

Crouch, R., Dale, J., Haverty, S., Winsor, S. (1996) Piloting an A&E and practice nurse educational exchange: clinical management. *British Journal of Nursing*, 5, 22, 1387-1390.

Crouch, R., Haverty, S., Westcott, J., Dale, J. (1997) Primary care in the A&E department: meeting the challenge: a workshop series for A&E nurses. *Nurse Education Today*, 17, 5, 481-486.

Crunden, E. (1998) *Developing a Strategy to Facilitate the Effective Preparation of Nurses for Specialist Practice.* Paper delivered to Providing Education for Practice BACCN 1998 Annual Conference, Manchester 20-22 October. In press.

Cutcliffe, J. (1996) Critically ill patients: perspectives of hope. *British Journal of Nursing*, 5, 11, 674; 687-690.

Dale, J. (1992) Nurse triage in accident and emergency departments. *British Medical Journal*, 304, 1378-1379.

Darbyshire, P. (1994) Skilled expert practice: is it all in the mind? A response to English's critique of Benner's novice to expert model. *Journal of Advanced Nursing*, 19, 4, 755-761.

Darley, M. and Rumsey, M. (1996) The Scope of Professional Practice: work to date. *Nursing Standard*, 11, 4 32-33.

Day, C. (1993) Reflection, a necessary but not sufficient condition for professional development. *British Education Research Journal*, 19, 1, 83-93.

Day, C., Fraser, D., Mallik, M. *et al.* (1998) *The Role of the Teacher/Lecturer in Practice: Research Highlights May 1998.* London: ENB.

Denzin, N. (1994) The art and politics of interpretation. In: Denzin, N. and Lincoln, Y. (eds) *Handbook of Qualitative Research.* Thousand Oaks Ca: Sage Publications.

Department for Education and Employment. (1998a) *The Learning Age.* London: HMSO.

Department for Education and Employment. (1998b) *Higher Education in the 21st Century.* London: HMSO.

Department of Health. (1989) *Working for Patients.* London: HMSO.

Department of Health. (1991) *The Welfare of Children and Young People in Hospital.* London: HMSO.

Department of Health. (1993) *Vision for the Future: The nursing, midwifery and health visiting contribution to health and health care.* London: HMSO.

Department of Health. (1994) *The Challenges for Nursing and Midwifery in the 21st Century.* London: HMSO.

Department of Health. (1996a) *Guidelines on Admission to and Discharge from Intensive Care and High Dependency Units.* London: HMSO.

Department of Health. (1996b) *Education and Planning Guidance.* EL, 96 46 17/6/96.

Department of Health. (1996c) *NHS Patient's Charter Services for Children and Young People.* London: NHSE.

Department of Health. (1997a) *Intensive and High Dependency Care Data Collection: User's manual for the augmented care period dataset.* London: NHSE.

Department of Health. (1997b) *The New NHS: Modern, dependable.* London: HMSO.

BEST COPY AVAILABLE

References

Department of Health. (1997c) *Paediatric Intensive Care: A Framework For The Future. Report from the National Co-ordinating Group on Paediatric Intensive care to the Chief Executive of the NHS Executive.* London: HMSO.

Department of Health. (1997d) *A Bridge to the Future: Nursing standards, education and workforce planning in paediatric intensive care. Report of the Chief Nursing Officer's Taskforce.* London: HMSO.

Department of Health. (1997e) *Government Plans for Higher Education Reform Strengthening Training for NHS staff.* Press Release 97/244 23.9.1997.

Department of Health. (1998) *A Report on the Supply and Administration of Medicines Under Group Protocols.* London: The Stationery Office.

Department of Health and Social Security. (1977) *The Extended Role of the Clinical Nurse.* London: HMSO.

Department of Health and Social Security. (1983) *NHS Management Enquiry (The Griffiths Report).* London: HMSO.

Dill, D. (1998) A view from the US: commentaries to the QAA proposals. *Higher Education Digest,* 31, 4-6.

Dillman, D. (1978) *Mail and Telephone Surveys: The total design method.* New York: John Wiley & Sons.

Dimond, B. (1995) The scope of professional practice and the accident and emergency nurse. *Accident and Emergency Nursing,* 3, 2, 105-107.

Dowling, S., Barret, S., West, S. (1995) With nurse practitioners, who needs house officers? *British Medical Journal,* 311, 309-313.

Dowling, S., Martin, R., Skidmore, P. *et al.* (1996) Nurses taking on junior doctors' work: a confusion of accountability. *British Medical Journal,* 312, 7040, 1211-1214.

Durston, M. and Rance, A. (1995) Bridging theory-practice gap in the ITU with in-service education. *Intensive Care Nursing,* 11, 4, 233-236.

Edwards, K. (1995) What are nurses views on expanding practice? *Nursing Standard,* 9, 41, 38-40.

Ellis, H. (1994) Education for critical care nurses. In: Millar, B. and Burnard, P. (eds) *Critical Care Nursing: Caring for the critically ill adult.* London: Ballière Tindall.

Endacott, R. (1992) Evaluating education in intensive care. *Intensive and Critical Care Nursing,* 8, 2, 100-103.

Endacott, R. (1996) Staffing intensive care units: a consideration of contemporary issues. *Intensive and Critical Care Nursing,* 12, 4, 193-199.

Endacott, R. (1997) Clarifying the concept of need: a comparison of two approaches to concept analysis. *Journal of Advanced Nursing,* 25, 3, 471-476.

Endacott, R. (1998) *Children in Intensive Care: Nurses' perceptions of need.* Unpublished PhD thesis, University of Exeter.

Endacott, R. (1999) Roles of the allocated nurse and shift leader in intensive care. *Intensive and Critical Care Nursing,* 15, 1, 10-18. In press.

Endacott, R. and Dawson, D. (1997) Clinical decisions made by nurses in intensive care - results of telephone survey. *Nursing in Critical Care,* 2, 191-196.

English National Board for Nursing, Midwifery and Health Visiting. (1989) *Guidelines for the Development of ENB Certificate Courses in General Nursing.* Circular 1989/27/AS. London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1991) *Framework for Continuing Professional Education for Nurses, Midwives and Health Visitors: Guide to implementation.* London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1996a) *Post-registration Studies Programmes: Lists of institutions conducting programmes. Circular 1996/03/RLV.* London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1996b) *Regulations and Guidelines for the Approval of Institutions and Courses: Regulations and guidelines relating to assessment.* London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1997a) *R&D Specifications 1997/1998 Literature Review and Documentary Analysis Project 2 Critical Care Nursing.* London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1997b) *Specialist Practitioner Programmes and Transitional Arrangements for Use of the Specialist Practitioner Title.* http://www.enb.org.uk/specint.htm 17/07/97.

331 127

BEST COPY AVAILABLE

English National Board for Nursing, Midwifery and Health Visiting. (1998a) *Quality Assurance Manual*. London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1998b) *Quality Assurance Manual*. London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1998c) *Operational Plan 1998-1999: Working for excellence in care*. London: ENB.

English National Board for Nursing, Midwifery and Health Visiting. (1999) A higher level of practice. *ENB News*, 31, 4.

English, I. (1993) Intuition as a function of the expert nurse: a critique of Benner's novice to expert model. *Journal of Advanced Nursing*, 18, 3, 387-393.

Eraut, M. (1994) *Developing Professional Knowledge and Competence: Concepts of competence and their implications*. London: Falmer Press.

Farrell, M. and Frost, C. (1992) The most important needs of parents of critically ill children: parents' perceptions. *Intensive and Critical Care Nursing*, 8, 3, 130-139.

Faugier, J. (1992) The supervisory relationship. In: Butterworth, C. and Faugier, J. (eds) *Clinical Supervision and Mentorship in Nursing*. London: Chapman and Hall.

Faugier, J. and Butterworth, T. (1993) *Clinical Supervision: A position paper*. Manchester: The University of Manchester School of Nursing Studies.

Ferguson, K. and Jinks, A. (1994) Integrating what is practised in the nursing curriculum: a multi-dimensional model. *Journal of Advanced Nursing*, 20, 4, 687-695.

Fish, D. and Purr, B. (1991) *An Evaluation of Practice-based Learning in Continuing Professional Education in Nursing, Midwifery and Health Visiting; Project Paper 4*. London: ENB.

Fitch, M., Eifert, C., Matthewman, J. *et al.* (1996) A guide for competency of the critical care nurse: A Canadian Perspective. *Journal of the Canadian Association of Critical Care*, 7, 4, 11-9.

Fitter, M. (1987) The impact of new technology on nurses and patients. In: Payne, R. and Firth-Cozens, J. (eds) *Stress in Health Care Professionals*. London: John Wiley.

Francis, B. and Humphreys, J. (1998) Education or centralisation? Differences in the development of nurse education commissioning policy among UK nations. *Nurse Education Today*, 18, 6, 433-439.

Fraser, J., Mok, Q., Tasker, R. (1997) Survey of occupancy of paediatric intensive care units by children who are dependent on ventilators. *British Medical Journal*, 315, 347-348.

Fulbrook, P., Pearce, J., Hind, M. (1996) Paediatric admissions to general intensive care units: BACCN survey report. *Intensive and Critical Care Nursing*, 12, 1, 12-15.

Funnell, P., Gill, J., Ling, J. (1992) Competence through interprofessional shared learning. In: Saunders, D. and Race, P. (eds) *Aspects of Educational and Training Technology XXV: Developing and measuring competence*. London: Kogan Page.

Gane, S. (1994) Time for a change. *Nursing Times*, 90, 4, 37-38.

Garside, P. (1993) *Patient-focused Care: A review of seven sites in England*. Leeds, NHSME.

George, S., Read, S., Westlake, L. *et al.* (1993) Differences in priorities assigned to patients by triage nurses and by consultant physicians in accident and emergency department. *Journal of Clinical Epidemiology*, 47, 4, 312-315.

George, S., Read, S. ,Westlake, L. *et al.* (1992) Evaluation of nurse triage in a British accident and emergency department. *British Medical Journal*, 304, 6831, 876-878.

George, S., Westlake, L., Read, S., Williams, B. (1991) Debate about triage in accident and emergency departments. *Journal of Advanced Nursing*, 16, 1391.

Gerrish, K., McManus, M., Ashworth, P. (1997) *Levels of Achievement: A review of the assessment of practice*. London: ENB.

Gibson, J. (1997) Focus on nursing in critical and acute care settings: prevention or cure? *Intensive and Critical Care Nursing*, 13, 3, 163-166.

Glaser, B. and Strauss, A. (1967) *The Discovery of Grounded Theory*. Hawthorne: NY: Aldine.

Goldhill, D. (1997) Introducing the postoperative care team. *British Medical Journal*, 314, 389.

Graham, I. (1992) Reconstructing nursing: a coronary care perspective of the primary nurse philosophy. *Intensive and Critical Care Nursing*, 8, 2, 118-124.

Greaves, K. (1993) National vocational qualifications. *British Journal of Theatre Nursing* (supplement) 3, 3, 13-28.

Green, A. (1991) Application of Jean Piaget's theory of human development for nursing children in an adult intensive therapy unit. *Intensive Care Nursing*, 7, 4, 236-239.

BEST COPY AVAILABLE

References

Greenhalgh and Company. (1994) *The Interface Between Junior Doctors and Nurses: A research study for the Department of Health.* Cheshire: GCL.

Greenhalgh, T. (1997) *How to Read a Paper: The basics of evidence-based medicine.* London: BMJ Publishing Group.

Gregg, P. (1996) *Modularisation: What academics think. 10-16 Modular higher education in the UK: in focus.* London: HEQC.

Haines, C., Perger, C., Nagy, S. (1995) A comparison of the stressors experienced by parents of intubated and non-intubated children. *Journal of Advanced Nursing*, 21, 2, 350-355.

Hall, S. (1995) Paediatric pain assessment in intensive care units. *Intensive and Critical Care Nursing*, 11, 1, 20-25.

Hall-Smith, J., Ball, C., Coakley, J. (1997) Follow-up services and the development of a clinical nurse specialist in intensive care. *Intensive and Critical Care Nursing*, 13, 5, 243-248.

Hewitt-Taylor, J. (1998) *The Education and Training of Registered Nurses for Practice in Paediatric Intensive Care in Canada.* Unpublished Report for the Florence Nightingale Foundation, February 1998.

Heyworth, J. (1992) Nurse triage in accident and emergency departments. *British Medical Journal*, 304, 1378-1379.

Higher Education Credit Initiative Wales (1996) Welsh Higher Education Credit Framework Handbook. Cardiff: Wales Access Unit.

Higher Education Quality Council. (1996) *Understanding Academic Standards in Modular Frameworks HEQC Graduate Standards Programme 1996.* London: HEQC.

Higher Education Quality Council. (1997) *Graduate Standards Programme Final Report.* London: HEQC.

Hill, Y. (1996) Children in intensive care: can nurse-parent partnership enable the family to cope more effectively? *Intensive and Critical Care Nursing*, 12, 3, 155-160.

Hilton, R. (1995) Fragmentation with interprofessional work: a result of isolationism in health care professional education programmes and the preparation of students to function only in the confines of their own discipline. *Journal of Interprofessional Care*, 9, 1, 133-140.

Hodder, I. (1994) The interpretation of documents and material culture. In: Denzin, N. and Lincoln, Y. (eds) *Handbook of Qualitative Research.* Thousand Oaks Ca: Sage Publications.

Houston, L., Hoover, J., Beer, E. (1997) Accreditation of prior learning: is it worth it. An evaluation of a pilot scheme. *Nurse Education Today*, 17, 3, 184-191.

Howard, D. (1995) Modules miss the point. *Nursing Times*, 91, 37, 54.

Hudson, G. (1993) Empathy and technology in the coronary care unit. *Intensive and Critical Care Nursing*, 9, 1, 55-61.

Humphreys, J. and Quinn. M, (1994) *Health Care Education: The challenge of the market.* London: Chapman and Hall.

Humphris, D. (1998) *Developing New Roles Shifting Boundaries and New Horizons.* Plenary Session Providing Education for Practice BACCN 1998 Annual Conference, Manchester, October 1998.

Hunt, G. and Wainwright, P. (1994) Introduction. In: Hunt, G. and Wainwright, P. (eds). *Expanding the Role of the Nurse: The scope of professional practice.* Oxford: Blackwell Scientific.

Jackson, N. (1996a) *Understanding Academic Standards in Modular Frameworks HEQC Graduate Standards Programme 1996.* London: HEQC.

Jackson, N. (1996b) *The Road to Modularity: Modular higher education in the UK in focus.* London: HEQC.

Jackson, N. (1996c) *The modularity learning curve: Modular higher education in the UK in focus.* London: HEQC.

Jackson, N. (1996d) *Assessment Issues. 94-5 Modular higher education in the UK : in focus.* London: HEQC.

James, C. and Redfern, L. (1995) The description levels of awards in nursing: an illustration and analysis of the variations. *Journal of Clinical Nursing*, 4, 3, 311-317.

James, I. (1996) Centralised paediatric intensive care beds are blocked. *British Medical Journal*, 312, 1476.

Jarvis, A. (1998) Parental presence during resuscitation: attitudes of staff on a paediatric intensive care unit. *Intensive and Critical Care Nursing*, 14, 1, 3-7.

Jarvis, P. (1985) *The Sociology of Adult and Continuing Education.* London: Croom Helm.

Jarvis, P. (1992) Reflective practice and nursing. *Nurse Education Today*, 12, 3, 174-181.

Jeffery, R. (1979) Normal rubbish: deviant patients in casualty departments. *Sociology of Health and Illness*, 1, 1, 90-107.

Jenkins, M. (1997) Early extubation post-cardiac surgery: implications for nursing practice. *Nursing in Critical Care*, 2, 6, 276-278.

Johns, C. (1993) Professional supervision. *Journal of Nursing Management*, 1, 1, 9-18.

Johns, C. (1995a) Framing learning through reflection within Carper's fundamental ways of knowing. *Journal of Advanced Nursing*, 22, 2, 226-234.

Johns, C. (1995b) The value of reflective practice for nursing. *Journal of Clinical Nursing*, 4, 2, 23-30.

Johns, C. (1997) Knowing and realising advanced practice through guided reflection. In: Rolfe, G. and Fulbrook, P. (eds) *Advanced Nursing Practice*. Oxford: Butterworth Heinemann.

Johnson, M. (1996) On refereeing journal articles (editorial). *Nurse Education Today*, 16, 3, 161-162.

Jones, C. (1990) The Bevan Report: comments sent by the Chairman to Mrs Anne Poole, Chief Nursing Officer at the DHSS on behalf of the NATN, in response to the recent publication of the Bevan Report. *British Journal of Theatre Nursing*, 27, 3, 9.

Kitching, D. (1998) The empowerment of children: who decides? *Accident and Emergency Nursing*, 6, 1, 11-14.

Kite, K. (1998) *Learning to Doubt: The professional development of nurses in one intensive therapy unit*. Unpublished PhD Thesis. Norwich: School of Education and Professional Development, University of East Anglia.

Klein, R. (1995) *The New Politics of the NHS*. Harlow: Longman Group.

Knowles, M. (1984) *The Adult Learner: A neglected species* (3rd edn). Houston: Gulf Publishing.

Koefman, K., Woods, M. (1995) Developing a new deal for nurses. *Nursing Standard*, 9, 44, 33-35.

Kohner, N. (1994) *Clinical Supervision in Practice*. London: King's Fund.

Kushner, S. (1996) Destination unknown. *Managing Higher Education*, Autumn 1996, 31.

Lafferty, P. (1997) Balancing the curriculum: promoting aesthetic knowledge in nursing. *Nurse Education Today*, 17, 4, 281-286.

Lamerton, M. and Albarran, J. (1997) Percutaneous balloon valvuloplasty: advancing the nursing perspective. *Nursing in Critical Care*, 2, 2, 88-92.

Lear, M. (1993) Awake for an operation. *British Journal of Theatre Nursing*, 3, 6, 10-12.

Leatheart, A. (1994) Communication and socialisation, 1, an exploratory study and explanation of nurse-patient communication in an ITU. *Intensive and Critical Care Nursing*, 10, 93-104.

Lemmer, B. and O'Riordan, B. (1997) Using research to find the effects of process-orientated educational assessment in critical care nursing practice. *Intensive and Critical Care Nursing*, 13, 5, 273-281.

Lewis, B. and Bradbury, Y. (1982) The role of the nursing profession in hospital accident and emergency departments. *Journal of Advanced Nursing*, 7, 3, 211-221.

Lewis, M. (1998) An examination of the role of learning environments in the construction of nursing identity. *Nurse Education Today*, 18, 3, 221-225.

Lindsay, B. (1990) Shared experience: post-registration theatre courses and common core learning. *British Journal of Theatre Nursing*, 27, 10, 5-6.

Lucas, J. (1990) *Towards Shared Learning*. Salford: Salford College of Technology.

Lyons, F. and Bement, M. (1996) Graduateness and learning outcomes by levels of study: guiding learners, lecturers and workplace mentors. In: *Modular Higher Education in the UK: In focus*. London: HEQC.

Mackintosh, C. (1994) Non-reporting of cardiac pain. *Nursing Times*, 90, 13, 36-39.

Mallet, J. and Woolwich, C. (1990) Triage in accident and emergency departments. *Journal of Advanced Nursing*, 15, 11, 1443-1451.

Mallet, J. and Woolwich, C. (1991) Triage in accident and emergency departments. *Journal of Advanced Nursing*, 16, 12, 1391-1393.

Mallik, M. (1993) Theory-to-practice links. *Senior Nurse*, 13, 4, 41-46.

Manley, K. (1994) Primary nursing and critical care. In: Millar, B. and Burnard, P. (eds) *Critical Care Nursing: Caring for the critically ill adult*. London: Ballière Tindall.

Manley, K., Cruse, S., Keogh, S. (1996) Job satisfaction of intensive care nurses practising primary nursing: a comparison with those practising total patient care. *Nursing in Critical Care*, 1, 1, 31-41.

BEST COPY AVAILABLE

References

Manley, K., Hamill, J., Hanlon, M. (1996) Nursing staff's perceptions and experiences of primary nursing practice in intensive care 4 years on. *Journal of Clinical Nursing*, 6, 4, 277-287.

Mason, C. (1994) Doing a research literature review. *Nurse Researcher Compendium*, 1, 47-59.

Massaro, V. (1998) A View from Australia. Commentaries to the QAA proposals, Summer 1998. *Higher Education Digest*. Issue 31, 6-7.

Masson, V. (1985) Nurse and doctors as healers. *Nursing Outlook*, 33, 2, 70-73.

McDonald, L., Butterworth, T., Yates, D.W. (1995) Triage: a literature review 1985-1993. *Accident and Emergency Nursing*, 3, 4, 201-207.

McDowell, L. (1996) Managing assessment in modular curriculum: issues, perceptions, responses and opportunities. In: *Modular Higher Education in the UK: In focus*. London: HEQC.

McGrother, J. (1993) Working for credit. *Nursing Times*, 89, 25, 34-35.

McKenna, G. (1993) Voluntarism: is it a useful concept for health education in the accident and emergency department? *Journal of Advanced Nursing*, 18, 5, 731-736.

Meek, S., Kendall, J., Porter, J., Freij, R. (1998) Can accident and emergency nurse practitioners interpret radiographs? A multicentre study. *Journal of Accident and Emergency Medicine*, 15, 2, 105-7.

Mezirow, J. and Associates. (1990) *Fostering Critical Reflection in Adulthood: A guide to emancipatory and transformative learning*. San Francisco Ca: Jossey-Bass.

Miles, M. and Huberman, M. (1994) Qualitative Data Analysis: An expanded source book (2nd edn). Thousand Oaks Ca: Sage Publications.

Milligan, F. (1998) Defining and assessing competence: the distraction of outcomes and the importance of educational process. *Nurse Education Today*, 18, 4, 273-180.

Morse, J. (1994) Designing funded qualitative research. In Denzin, N. and Lincoln, Y. (eds) *Handbook of Qualitative Research*. Thousand Oaks Ca: Sage.

Murphy, K. and Atkins, S. (1994) Reflection with a practice-led curriculum. In: Palmer, A., Burns, S., Bulman, C. (eds) *Reflective Practice in Nursing: The growth of the professional practitioner*. Oxford: Blackwell Scientific.

National Association of Theatre Nurses. (1992) A *Strategy for Nursing in the Operating Department*. Harrogate: NATN.

National Association of Theatre Nurses. (1993) *The Role of the Nurse as First Assistant in the Operating Department*. Harrogate: NATN.

National Committee of Inquiry into Higher Education. (1997) *Higher Education in the Learning Society* (Chair Sir Ron Dearing). London: NCIHE.

NHS Management Executive. (1991) *Junior Doctors: The New Deal. Making the best use of skills of nurses and midwives*. London: NHSE.

NHS Executive. (1996) *Professional Roles in Anaesthetics: A scoping study*. Leeds: NHSE.

Nolan, M., Booth, A., Nolan, J. (1997) *Preparation for Multiprofessional/Multi-agency Health Care Practice: The nursing contribution to rehabilitation within the multidisciplinary team*. Literature Review and Documentary Analysis. London: ENB.

Norman, S. (1996) *Education for Excellence in Practice*. Paper given at the Association of British Paediatric Nurses conference, Durham.

O'Brien, D. and Alexander, S. (1985) *High Dependency Nursing*. Edinburgh: Churchill Livingstone.

Otter, S. (1994) Learning outcomes in higher education. In: *Competence and Assessment Compendium*. London: Department of Employment Group.

Owen, R., Nolan, M., Venebales, A. *et al.* (1998) *Evaluation of the Implementation of the Framework for Continuing Professional Education and the Higher Award* (initial evaluation). *Research Highlights* Series 33. London: ENB.

Palmer, A. (1994) Introduction. In: Palmer, A., Burns, S., Bulman, C. (eds) *Reflective Practice in Nursing: The growth of the professional practitioner*. Oxford: Blackwell Scientific.

Palmer, J. (1996) Exploring the psychological effects of intensive care on paediatric patients: issues from the literature. *Nursing in Critical Care*, 1, 1, 26-30.

Parkin, P. (1995) Nursing the future: a re-examination of the professionalisation thesis in the light of some recent developments. *Journal of Advanced Nursing*, 21, 3, 561-567.

Parsons, E. (1994) Technology and the nursing dilemma: a sociological analysis of modernism and post modernism in intensive care units. In: Millar, B. and Burnard, P. (eds) *Critical Care Nursing: Caring for the critically ill adult*. London: Ballière Tindall.

BEST COPY AVAILABLE

Pearce, J. (1994) Communication in critical care nursing. In: Millar, B. and Burnard, P. (eds) *Critical Care Nursing: Caring for the critically ill adult*. London: Ballière Tindall.

Pearce, J., Glasper E., Atkinson, B. (1993) A response to the British Paediatric Association report on paediatric intensive care services. *British Journal of Nursing*, 2, 22, 1095-1096.

Ministry of Health. (1959) *The Welfare of Children in Hospital* (The Platt Report). London: HMSO.

Porter, J. (1992) Nurse triage in accident and emergency departments. *British Medical Journal*, 304, 1378-1379.

Price, S. (1994) The special needs of children. *Journal of Advanced Nursing*, 20, 2, 227-232.

Purcell, C. (1993) Holistic care of a critically ill child. *Intensive Care Nursing*, 9, 2, 108-115.

Purdy, M. (1997) The problem of self-assessment in nurse education *Nurse Education Today*, 17, 2, 135-139.

Quality Assurance Agency. (1998) *Consultation Paper on Future Quality Assurance Arrangements*. London: QAA.

Quality Support Centre. (1998) Briefing. *Higher Education Digest*, Summer, Issue 31, 2-4.

Quinn, T. (1998) Early experience of nurse-led elective DC cardioversion. *Nursing in Critical Care*, 3, 2, 59-62.

Radford, M. (1998) Lecture theatre. *Nursing Standard*, 8, 12, 20.

Rapin, M. (1987) The ethics of intensive care. *Intensive Care Medicine*, 13, 5, 300-303.

Read, S. (1997) Exploring new roles in nursing: a researcher's perspective. In: Rolfe, G. and Fulbrook, P. (eds) *Advanced Nursing Practice*. Oxford: Butterworth Heinemann.

Read, S., Nolan, M., Roberts-Davis, M., Gilbert, P. (undated) *Realising Specialist and Advanced Nursing Practice: Research outline*. Sheffield: University of Sheffield.

Reeve, W. and Wallace, P. (1991) A survey of sedation in intensive care. *Care of the Critically Ill*, 7, 6, 238-241.

Rich, A. and Parker, D. (1995) Reflection and critical incident analysis: ethical and moral implications of their use within nursing and midwifery education. *Journal of Advanced Nursing*, 22, 9, 1050-1057.

Richardson, C. and Maynard, A. (1995) *Fewer Doctors? More Nurses? A review of the knowledge base of doctor nurse substitution*. Discussion Paper 135. York: The University of York Centre for Health Economics Consortium NHS Centre for Reviews and Dissemination.

Ritz, R. (1991) Benzodiazepine sedation in adult ICU patients. *Intensive Care Medicine*, 17, 11-14.

Robertson, D. (1994) *Choosing to Change: Extending access, choice and mobility in higher education* (report of the HEQC CAT development project). London: HEQC.

Robertson, D. (1996) The reconciliation of academic disciplines and modular frameworks: student choice, knowledge production and the new rigidities. In: *Modular Higher Education in the UK: In focus*. London: HEQC.

Robson, C. (1993) *Real World Research: A resource for social scientists and practitioner-researchers*. Oxford: Blackwell.

Rolfe, G. (1997) Education for the advanced practitioner. In: Rolfe, G. and Fulbrook, P. (eds) *Advanced Nursing Practice*. Oxford: Butterworth Heinemann.

Royal College of Nursing. (1994a) *Standards of Care for Critical care Nursing*. Harrow: Scutari Publications.

Royal College of Nursing. (1994b) *Waiting For a Bed*. London: RCN.

Royal College of Nursing. (1994c) *Accident and Emergency: Challenging the boundaries*. London: RCN.

Royal College of Nursing (1995) *Patient Dependency Studies: Guidelines for nurses*. London: RCN.

Royal College of Nursing. (1996) *Still Waiting For a Bed*. London: RCN.

Royal College of Nursing. (1997) *The Nature of Nursing Work in Intensive Care*. London: RCN.

Royal College of Nursing Accident and Emergency Nursing Association. (1997) A&E Association position statement on health care assistants in A&E departments. *Emergency Nurse*, 5, 2, 3.

Runciman, P., Currie, C., Nicol, M. *et al.* (1996) Discharge of elderly people from an accident and emergency department: evaluation of health visitor follow-up. *Journal of Advanced Nursing*, 24, 4, 711-718.

Rushforth, H. and Ireland, L. (1997) Fit for whose purpose? The contextual forces underpinning the provision of nurse education in the UK. *Nurse Education Today*, 17, 6, 437-441.

Sapsford, R. (1994) Making sense of the literature. *Nurse Researcher*, 1, 1, 27-34.

References

Sbaih, L. (1993) Accident and emergency work: a review of some of the literature. *Journal of Advanced Nursing*, **18**, 957-962.

Sbaih, L. (1997) Becoming an A&E nurse. *Accident and Emergency Nursing*, **5**, 4, 193-197.

Scholes, J. (1995) *An Exploration of Role Transition in Students Converting from EN (General) to Registered General Nurses*. Unpublished DPhil. University of Sussex.

Scholes, J. (1996) Therapeutic use of self: how the critical care nurse uses self to the patient's therapeutic benefit. *Nursing in Critical Care*, **1**, 2, 60-66.

Scholes, J. (1998) *Advanced Practice and Innovation: implications for practitioners*. Conference Proceedings for Chances, Changes, and Choices: A view towards 2000. In press.

Scholes, J. and Smith, M. (1997) *Starting Afresh: The impact of the critical care milieu on newcomers and novices*. ITU NDU Occasional Paper Series 1. Brighton: University of Brighton.

Scholes, J. and Moore, M. (1997) *Making a Difference: The way in which the nurse interacts with the critical care environment and uses herself as a therapeutic tool*. ITU NDU Occasional Paper Series 2. Brighton: University of Brighton.

Schön, D. (1987) *Educating the Reflective Practitioner*. San Francisco Ca: Jossey Bass.

Schön, D. (1991) *The Reflective Practitioner* (2nd edn). London: Temple Smith:

Scothern, G., Jones, S., MacFayden, U. (1992) Young children in a general intensive therapy unit. *Care of the Critically Ill*, **8**, 5, 208-209.

Scribante, J., Muller, M. and Lipman, J (1996) A guide for competency of the critical care nurse. *American Journal of Critical Care*, **5**, 3, 217-226.

Schwandt, T. and Halpern, E. (1988) *Linking Auditing and Meta Evaluation: Enhancing quality in applied research*. Applied Sociological Research Methods Series, Vol.11. Newbury Park Ca: Sage Publications.

South East Educational Consortia. (1996) *Guidelines for Credit Consortium General Credit Rating: Final report*. London: DfEE.

Spratley, J. and Pietroni, M. (1994) *Creative Collaboration: Interprofessional learning priorities in primary health and community care*. London: Marylebone Centre Trust.

Steel, J. (1995) Inappropriate: the patient or the service? *Accident and Emergency Nursing*, **3**, 146-149.

Steinaker, N. and Bell, M. (1979) *The Experiential Taxonomy: A new approach to teaching and learning*. New York NY: Academic Press.

Storrie, J. (1992) Mastering interprofessionalism: an enquiry into the development of Masters programmes within an interprofessional focus. *Journal of Interprofessional Care*, **6**, 3, 253- 260.

Strauss, A. and Corbin, J. (1990) *Basics of Qualitative Research: Grounded theory procedures and techniques*. Newbury Park Ca: Sage Publications.

Thompson, D. and Bowman, G. (1998) Evidence for the effectiveness of cardiac rehabilitation. *Intensive and Critical Care Nursing*, **14**, 1, 38-48.

Thompson, D., Webster R. and Sutton, T. (1994) Coronary care unit patients' and nurses' ratings of intensity of chest pain. *Intensive and Critical Care Nursing*, **10**, 2, 83-88.

Todd, N. (1997) The physiological knowledge required by nurses caring for patients with unstable angina. *Nursing in Critical Care*, **2**, 1, 17-24.

Tolley, K. (1994) Extending nurses' professional roles. *Nursing Standard*, **9**, 3, 25-28.

Trow, M. (1973) *Problems in the Transition from Elite to Mass Higher Education*. Berkeley Ca: Carnegie Commission on Higher Education.

Trowler, P. (1996) Responses of academics to credit-based modularity in an expanding higher education systems. In: *Modular Higher Education in the UK: In focus*. London: HEQC.

Tye, C. (1996) Sudden bereavement in accident and emergency: the development and evaluation of a short educational course for qualified nurses. *Accident and Emergency Nursing*, **4**, 2, 88-93.

Tye, C. (1997) The emergency nurse practitioner role in major accident and emergency departments: professional issues and the research agenda. *Journal of Advanced Nursing* **26**, 2, 364-70.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1986) *A New Preparation for Practice*. London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1992a) *The Scope of Professional Practice*. London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1992b) *The Code of Professional Conduct* (3rd edn). London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1993) *Proposed Standards for Post-Registration Education*. London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1994) *The Council's Standards for Education and Practice Following Registration: Programmes of education leading to the qualification of specialist practitioner*. Registrar's Letter 20/1994 CMc/MJW/PG/2/boc.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1996) *Position Statement on Clinical Supervision for Nursing and Health Visiting*. London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1997a) *PREP: The nature of advanced practice*. London: UKCC.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1997b) *Specialist Practitioner Qualification*. A. Roques 10/91997 Dpd/cp/letters/specprac.

United Kingdom Central Council for Nursing, Midwifery and Health Visiting (1998) *A Higher Level of Practice Consultation Document*. London: UKCC.

van der Woning, M. (1997) Should relatives be allowed to witness a resuscitation attempt? A review of the literature. *Accident and Emergency Nursing*, 5, 4, 215-218.

Vaughan, B. (1994) Education and development. In: Bishop, V. and Butterworth, T. (eds) *Proceedings of the Clinical Supervision Conference*. Clinical Supervision: a resource pack for practice nurse. London: NHSE.

Walker, J. (1996) The use of oral Midazolam in accident and emergency to reduce anxiety in children. *Accident and Emergency Nursing*, 4, 3, 110-113.

Walker, L. (1996) On judging modularity: a personal view. *Modular Higher Education in the UK: In focus*. London: HEQC.

Walsh, M. (1990) Patient's choice: GP or A&E department? *Nursing Standard*, 5, 10, 28-31.

Walsh, M. (1995) The health belief model and use of accident and emergency services by the general public. *Journal of Advanced Nursing*, 22, 14, 694-699.

Walters, A. (1995) A Heideggerian hermeneutic study of the practice of critical care nurses. *Journal of Advanced Nursing*, 21, 3, 492-497.

Warner, D. (1996) Coherence or chaos? *Managing Higher Education*, Autumn, 30-31.

Watson, D. (1996) Modularity: for and against. *Modular Higher Education in the UK: In focus*. London: HEQC.

Watson, D. (1999) Personal Communication.

Watson, D. and Taylor, R. (1998) *Lifelong Learning: A post-Dearing agenda*. London: Falmer Press.

Watson, D., Brookes, J., Cogill, C., Lindsay, R., and Scurry, D. (1989) *Managing the Modular Course: Perspectives from Oxford polytechnics*. Milton Keynes: SRHE/OU Press.

Wells, W. (1995) *Investigation into Neurosurgery Patient Transfers*. London: South Thames Regional Health Authority.

While, A. (1994) Competence versus performance: which is more important?. *Journal of Advanced Nursing*, 20, 3, 525-531.

Wilkinson, P. (1992) The influence of high technology care on patients, their relatives and nurses. *Intensive and Critical Care Nursing*, 8, 4, 194-298.

Willis, J. (1998) Working on expanding roles. *Nursing Times*, Learning Curve 2, 9, 14-15.

World Federation of Societies of Intensive and Critical Care Medicine. (1993) The declaration of Madrid on the preparation of critical care nurses. *Intensive and Critical Care Nursing*, 9, 2, 142.

Zainal, G. and Scholes, J. (1997) *Adapting to Crisis: The relatives' experience of intensive care and the nurse's therapeutic role with the family*. ITU NDU Occasional Paper Series No 3. Brighton: University of Brighton.

RESEARCHING PROFESSIONAL EDUCATION

Titles in this series

13 **Diversity and Complexity: a documentary analysis of critical care nursing education**
J Scholes, R Endacott, A Chellel
1999

12 **Evaluation of the Implementation of the Framework for Continuing Professional Education and the Higher Award**
R Owen, M Nolan, A Venables, R Behi
1999

11 **Preparation for the Developing Role of the Community Children's Nurse**
S Procter, S Campbell, C Biott, S Edward, with N Redpath, M Morgan
1999

10 **Managing and Assessing Risk in Nursing Practice: supporting vulnerable people in the community**
A Alaszewski, H Alaszewski, J Manthorpe, S Ayer
1998

9 **Preparing Effective Midwives: an outcome evaluation of the effectiveness of pre-registration midwifery programmes of education**
D Fraser, R Murphy, M Worth-Butler
1998

8 **The Role of the Teacher/Lecturer in Practice**
C Day, D Fraser, M Mallik
1998

7 **Recruiting Minority Ethnic Groups into Nursing, Midwifery and Health Visiting**
P Iganski, A Spong, D Mason, A Humphreys, M Watkins
1998

6 **New Directions in Rehabilitation: exploring the nursing contribution**
M Nolan, A Booth, J Nolan
1997

5 **Levels of Achievement: a review of the assessment of practice**
K Gerrish, M McManus, P Ashworth
1997

4 **Breaking New Ground: an exploratory study of the role and education of the advanced neonatal nurse practitioner**
M E Redshaw, A Harris
1995

3 **Learning to Use Scientific Knowledge in Education and Practice Settings: an evaluation of the contribution of the biological behavioural and social sciences to pre-registration nursing and midwifery programmes**
M Eraut, J Alderton, A Boylan, A Wraight
1995

2 **Learning Styles and Facilitating Reflection**
C Miller, A Tomlinson, M Jones
1994

1 **Education, Dialogue and Assessment: creating partnership for improving practice (The ACE Report)**
T Phillips, H Bedford, J Robinson, J Schostak
1994

If you would like further details of any of these titles, please contact the Board's Publications Department at:

Victory House, 170 Tottenham Court Road, London W1P 0HA

Telephone: 0171 391 6314 Fax: 0171 383 7276 E-mail: pubs@enb.org.uk

RESEARCHING PROFESSIONAL EDUCATION

A series from the English National Board for Nursing, Midwifery and Health Visiting

Diversity and Complexity: a documentary analysis of critical care nursing education

Julie Scholes
Ruth Endacott
Annie Chellel

This report, in the Board's series *Researching Professional Education*, has been published to make Board commissioned research readily available to policy makers, practitioners, researchers and educationalists.

Diversity and Complexity: a documentary analysis of critical care nursing education was commissioned by the Board to serve as the first phase of a larger-scale empirical evaluation examining the outcomes of curricular intentions. The research team focused on the five most frequently occurring critical care programmes and collected data concerning the perceptions of service managers and educational institutions together with undertaking an extensive documentary analysis and literature review.

Among the many issues revealed by the research were the:

- variety of curriculum models
- impact of work-based learning
- differences in the expectations of managers and academic institutions
- different interpretations of academic levels
- balance of assessment methods.

English National Board for Nursing, Midwifery and Health Visiting
Victory House, 170 Tottenham Court Road, London W1P 0HA
Telephone: 0171 388 3131 Fax: 0171 383 4031
E-mail: link@enb.org.uk Internet: http://www.enb.org.uk

136

QUALITY EDUCATION · ENB · FOR QUALITY CARE ·

THIRTY-FIVE

JULY 1999

Research Team

Dr Julie Scholes, Project Leader, Senior Lecturer Research, University of Brighton

Dr Ruth Endacott, Principal Research Fellow, University of Brighton

Annie Chellel, Project Researcher, University of Brighton

Clinical Consultants to the project:

Deborah Dawson (ITU), Head Nurse

Jo Harrison (A&E), Lecturer Practitioner

Denise Hinge (ITU), Education Facilitator

Alison Roberston (Paediatrics), Assistant Director of Nursing

All the clinical consultants were based in specialist units at The Royal Sussex County Hospital, Brighton.

Steering Group

Professor Collette Clifford, (Chair) School of Health Sciences, University of Birmingham

Mrs. Sonia Crow, Assistant Director for Educational Policy R&D, English National Board

Ms Gill Hek, Senior Lecturer, Faculty of Health and Social Care, University of West of England

Ms Kim Manley, Senior Fellow Practice Development, the Royal College of Nursing Institute

Ms Lin McDonagh, Education Officer, English National Board

Ms Sandy Waldron, Head Nurse A&E, The Royal Sussex County Hospital

Professor Michael Whiting, Dean of The Faculty of Health, University of Brighton

Ms Marilyn Williams, Senior Lecturer, University of Wolverhampton.

English National Board for Nursing, Midwifery and Health Visiting

Victory House
170 Tottenham Court Road
London W1P 0HA

Telephone: 0207 388 3131
Fax: 0207 383 4031

research HIGHLIGHTS

Documentary Analysis and Literature Review of Critical Care Nursing Education

Abstract

The purpose of the study was to: 'inform the Board's development of national core competencies which could provide a central foundation and promote national comparability in all the Board validated clinical courses' (ENB, 1997). The researchers analysed 105 ENB numbered courses from 30 Institutions (including ENB 100; 124; 183/176; 199; 415 programmes) current on 1st April 1998. Telephone interviews with 84 programme leaders and a telephone survey of 81 clinical managers were conducted to ground the documentary analysis and literature review in the real world of critical care practice. This document outlines the methods and key findings of the project.

Main Findings

1 Each curriculum document was written in a different way. This seemed to be related more to the 'house style' of the University than any other factor. This made comparison of data a complex task. As this was a curriculum analysis it was not possible to fully gauge the relationship of the written document to the lived experience of the curriculum, therefore, the findings are tentative.

2 The courses appeared to be configured into six theoretical types. These typologies were based upon the number of credits the ENB award attracted at different academic levels, for example, between 30 - 90 credits at level 2 to 120 level 3 credits. A total of 11 institutions offered their critical care courses fully configured to either a diploma or degree, while 4 institutions offered their critical care courses to weight less than 60 level 2 or level 3 credits. There was no consistent pattern in the configuration and weighting of core, specialist or cluster modules.

3 There appeared to be a general drift away from formal curriculum models in favour of modular frameworks (which may or may not have explicitly referred to a professional framework like the Higher Award (ENB, 1991) or Specialist Practice (UKCC, 1994)).

4 Two distinct approaches to the generation of practice outcomes were evident: predetermined outcomes (set by the curriculum development team); or student determined outcomes (based on the application of module content by the student, or negotiated between the student, the clinical manager and the course leader). The way in which practice was assessed, and the specificity of practice learning outcomes, varied considerably by institution raising significant questions about the national comparability of practice assessment.

5 Two courses from each 'theoretical type' were selected to identify the commonalities and differences in learning outcomes and to identify what was specific to the numbered programme and common to all the critical care courses. Some learning outcomes were written in a broad abstract style and were few in number, others were written in greater detail. No clear pattern emerged to determine that the specificity of the learning outcome was linked to an academic level or type of course.

6 Topics were extracted from each of the learning outcomes and tabulated to display the frequency with which each topic was addressed by specialist course. The topics were grouped into categories and then into themes which were verified by the clinical consultants. This revealed that only four themes were evident in all the courses: approaches to care; aspects of care; wider aspects of the professional role; and physiology.

7 Only six out of 38 sampled adult critical care programmes made explicit reference to paediatric care in the speciality (two adult ITU courses; one Theatre and Recovery course; and three A&E courses).

8 The majority of courses addressed the following themes: personal development (bar one theatre course; and two paediatric courses); research (bar one paediatric course); management (bar two paediatric courses). Teaching and assessing was not addressed by two institutions whose courses led to between 60 - 90 level 2 credits. Three paediatric courses did not have any learning outcomes related to this theme.

9 For the 44 critical care courses subjected to detailed analysis, only one category, 'professional issues' was common to all. Psycho-social aspects were covered in all the ITU courses (n=10); Rehabilitation and multi-disciplinary teamwork were two categories covered in all the coronary care courses (n=10); Care of significant others was a category covered in all the paediatric courses (n=6); Resource allocation and resource management were topics covered in all the A&E courses (n=9). Apart from professional issues, there were no categories common to all the theatre and recovery nursing courses (n=9).

10 The content of learning outcomes which was directly related to physiology varied across the courses. There was no pattern emerging that would indicate that physiology was more likely to be addressed in detail on a level 2 programme or a level 3 programme.

11 There was no evidence in the comparative taxonomy of learning outcomes, the assessment of theory, or the assessment of practice, that clearly identified a common standard for either level 2 or level 3 work across the courses.

12 The telephone survey of clinical managers was conducted in November - December 1998. The sample size was 102 and there was an 80% response rate to the survey. The respondents represented both a broad geographical spread and all the five critical care specialities included in the study.

13 The majority of clinical managers (68%) were satisfied with the competencies and skills of the nurses who had undertaken the local ENB numbered course, but these responses were influenced by the clinical managers' perception of the purpose of the course: to prime the practitioner for practice or to consolidate past experience in the speciality. However, 47% of the clinical managers felt that raising the academic level of the course had adversely influenced the range of competencies and skills the student could acquire on the programme.

14 The majority of clinical managers (70%) felt they could influence the design and content of the course, although some stated that their influence was limited.

15 Only 31% of the clinical managers stated that they would prefer the course to be set at degree level. The majority of clinical managers surveyed (73%) stated that students had given them feedback that they preferred the course to be fully configured into a diploma or degree.

16 Clinical Managers had different expectations about the purpose of the course: to prime the nurse for a career in the speciality (and thereby develop core competencies); or to consolidate the nurses' experience and broaden their intellectual skills. Any work undertaken to develop national threshold standards for the critical care courses would need to take account of these different perceptions before determining the learning outcomes expected of the student. It may be useful to explore this issue, emphasising the professional qualification rather than the academic credits that were linked to the award.

17 A key factor in the changing provision of critical care courses has been the ambition to ensure programmes can be responsive to local need. However, the programmes lead to national awards and this can create tension when trying to establish the 'gold standard' or comparability of the courses.

Methodology

The research questions which guided the methodology were conceptualised under the following headings:

a) **Integration into higher education**

In what way has the shift of courses from their traditional hospital base into the university system influenced the design and delivery of courses? What other factors have influenced the design and delivery of courses? How have these factors influenced the national comparability of the programmes?

b) **Academic level**

What is the academic level to which critical care courses are pegged? What type and number of credits does each course attract? How does this influence course content and the stated learning outcomes? To what extent has this been influenced by local phenomena (e.g. the diversity of clinical practice undertaken in any one setting or the academic institution in which the course resides)?

c) **Comparability of the ENB courses**

What can one expect of a critical care course i.e. what is the 'gold standard' of an ENB numbered award?

d) **Shared learning**

What type of knowledge is shared and what is exclusive to courses for different critical care settings/specialities? How does this differ around the country?

e) **Practice assessment**

How has the introduction of clinically based courses at a higher academic level influenced the way in which practice is assessed? What is similar and what is different in terms of the stated practice learning outcomes for a student who is awarded diploma or degree credits?

f) **Evidence base of learning outcomes**

What is the evidence/research base of the stated learning outcomes? Is this evidence specific or applied to critical care settings? What is the source of this evidence and what weight is it given in the assessment of theory and practice?

Methods

Data were gathered by: telephone interview; documentary analysis; comprehensive literature review; and telephone survey. Data collection and analysis ran concurrently, with each phase of the study influencing the next stage of the project and new data influencing the analysis of preceding data. This cycle was continued up to the final synthesis of all the data and the final draft of the research report.

To ground the research in the 'real world' of critical care practice, the research team were

informed by lecturers; clinical consultants and four focus groups.

Emergent data from the documentary analysis, telephone interview and telephone survey influenced the search for relevant UK based literature from 1992 onwards and the codes and categories into which that data were sorted. The literature review was conceptualised into two themes: factors influencing the provision of critical care education; and factors influencing critical care practice. The material was put into themes and categories which were then verified (as relevant and complete) by the clinical consultants and an independent policy and practice consultant. Key areas covered by the literature review are demonstrated in Tables 1 & 2.

The agenda for the telephone interview was developed through discussion with critical care lecturers in two different focus groups.

It took six months in total to make contact with the critical care lecturers and gather all the required documentation. Documentary analysis was divided into two phases: an overview of all the curriculum returned to the research team (n=105) and a purposive sample of each 'theoretical type' of course across the specialities (n=44). Data were extracted from the curriculum to elicit key information about the courses to inform the research questions. Data were then the subject of constant comparison across the same speciality; across critical care courses within the institution; and across courses within the same 'theoretical type'.

The telephone survey with the clinical managers was undertaken to identify their perceptions about issues raised in the documentary analysis, literature review, telephone interview with lecturers and focus groups. The analysis of the findings from the telephone survey of clinical managers informed the final analytical cycle of all the preceding data.

Table 1: Key Issues for discussion in the literature review (education context)

Context

Globalisation
Massification of HE
Technology based learning
Vocational and leisure time learning

Higher Education

Dearing Report
HE for the 21st Century
Learning Age - Lifelong Learning
CATS
RAE
QAA (Subject Reviews/continuation audit)
Multi professional/shared learning
Qualification inflation
Standardisation

Curriculum

Modularity (Generic, specialist, cluster modules)
Semesterisation
Flexible Learning
Assessment

Professional & Statutory Bodies

PREP
Scope
Higher level Practice
The role of P/SBs in maintaining quality standards
50% theory 50% practice assessment to make up the award

Purchasing

Consortia
Competition
Attrition Rates

Practice

Innovation & New Roles
Preceptorship & Supervision
Learning environments
Assessment of practice to make up academic award

Table 2: Key Issues for discussion in the literature review (Clinical context)

macro initiatives

revised code of conduct
scope of professional practice
new deal task force
multi professional working

sharing roles
innovative roles
clinical supervision
higher level practice
clinical governance

developing and expanding services

critical care without walls

decision making/autonomy
centrality of assessment skills
personal development
innovative practice
the care of children in adult settings

critical care without walls

response by specialities

A/E nursing
health education role
primary care needs
nurse practitioner roles
nurse led: triage
minor injury clinics
multi-agency liaison
ATLS/TNCC ACLS

CCU nursing
defibrillation
pain assessment
assessment of health needs
rehabilitation

PICU nursing
specialist environment
family needs and partnerships in care

GICU nursing
expanding roles e.g. extubation
and nurse led weaning
patient dependency scoring
skill mix
nurse led follow up clinics

Operating department nursing
day case surgery
delineation of specialist roles within OD area
continuity of care pre and post operative visiting
surgeon's assistant role
ODA - NVQ preparation

Further information

For copies of the Research Highlights and the Report, please contact:

ENB
Publications Department
Victory House
170 Tottenham Court Road
London W1P 0HA

Contact Addresses

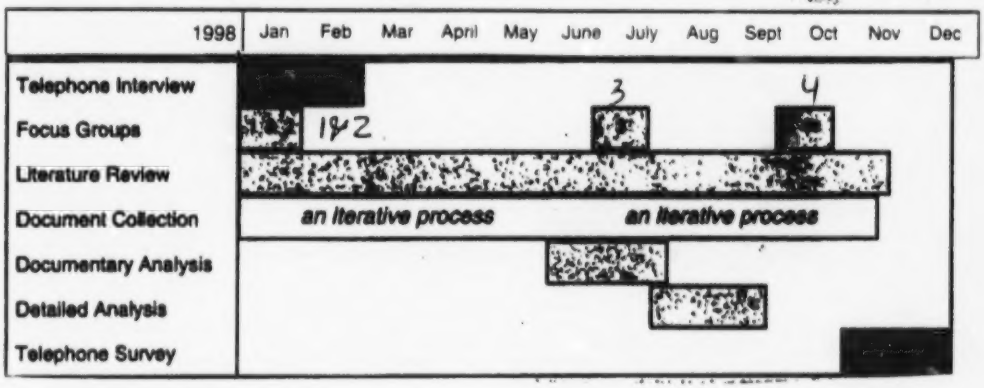
Dr julie Scholes & Annie Cheliel, Centre for Nursing and Midwifery Research, University of Brighton, Ashdown House, Sussex University Campus, Falmer, Brighton, BN1 9RT

Dr Ruth Endacott, Larch Court, Spreyton, Crediton, Devon, EX17 5EA

Details about the Project

The project was conducted between January 1998 - 1999 and was commissioned by the English National Board for Nursing, Midwifery and Health Visiting. The phases of the study and time frame are illustrated in Table 3.

Table 3: Timing and phasing of the project



The report will be of particular interest to education and service managers, lecturers and clinicians working in critical care who are involved with the planning, delivery or support of critical care programmes. It may be of interest to students on critical care courses or practitioners considering enlisting for the various courses to inform any discussion and raise pertinent questions they may have with the providers of those programmes.

Key References

Department of Health (1996) *Guidelines on admission to and discharge from Intensive Care and High Dependency Units* (NHSE: London).

Department of Health (1997) *A Bridge to the Future: Nursing standards, Education and Workforce Planning in Paediatric Intensive Care. Report of the Chief Nursing Officer's Taskforce.* London, HMSO.

Gerrish, K., McManus, M. and Ashworth, P. (1997) *Levels of achievement: a review of the assessment of practice* (London: ENB).

RCN (1994) *Accident and Emergency : challenging the boundaries* (Royal College of Nursing, London).

Watson, D. and Taylor, R. (1998) *Lifelong learning and the University: A Post-Dearing Agenda* (London: Falmer Press).

RESEARCH HIGHLIGHTS

Published by

English National Board for Nursing, Midwifery and Health Visiting

July 1999

© English National Board for Nursing, Midwifery and Health Visiting

BEST COPY AVAILABLE